JVC

SERVICE MANUAL

DX-E76BK/DX-E77TN

(UNIT No.XL-E76BK / XL-E77TN)

COMPACT disc DIGITAL AUDIO

* XL-E76BK and XL-E77TN are completely the same in their structure , except for the outlook colour .
* For the instruction book , refer to the AX-E76BK /AX-E77TN service manual (No.20353) .
* AX-E76BK (or AX-E77TN) is needed (for power supply etc.) when servicing.

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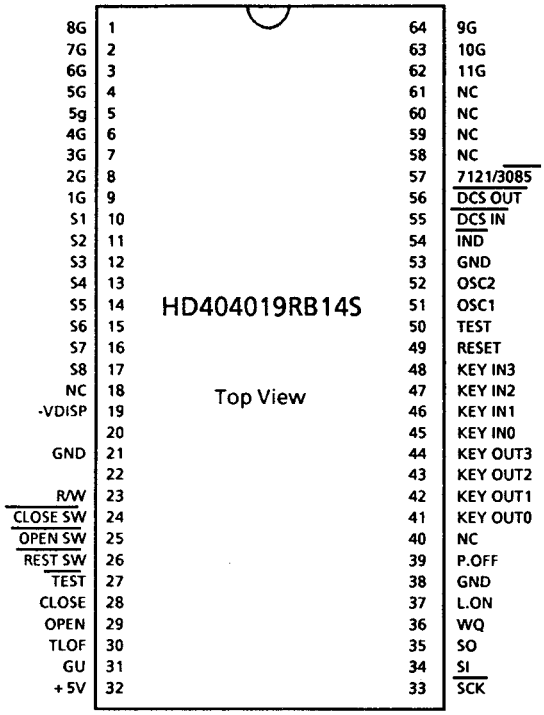
No. 20354

Description of Major LSIs

■ HD404019RB14S(IC991) : CD SYSTEM CONTROLLER

1.Terminal Layout



2.Key Matrix

	KEY IN 0 (PIN 45)	KEY IN 1 (PIN 46)	KEY IN2 (PIN 47)	KEY IN3 (PIN 48)
KEY OUT0 (PIN 41)	—	—	—	P.EDIT
KEY OUT1 (PIN 42)	■	⏭	▶/II	OPEN/ CLOSE
KEY OUT2 (PIN 43)	DISPLAY	A.EDIT	⏮	—
KEY OUT3 (PIN 44)	REPEAT	SIDE A/B	—	RANDOM

3.Pin Function Description

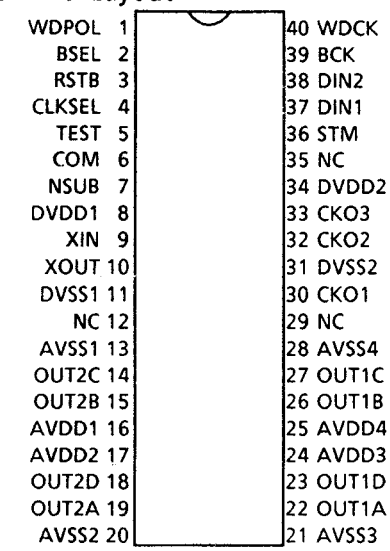
Pin No.	Symbol	I/O	Function and Operations	Pin No.	Symbol	I/O	Function and Operations
1	8G	O	FL grid control output	33	SCK	O	Clock output
2	7G	O	〃	34	SI	O	Serial data output
3	6G	O	〃	35	SO	I	Serial data input
4	5G	O	〃	36	WQ	I	Write request input
5	5g	O	〃	37	L.ON	O	Laser control signal
6	4G	O	〃	38	GND	--	GND
7	3G	O	〃	39	P.OFF	O	CD power off signal
8	2G	O	〃	40	NC	--	Non connection
9	1G	O	〃	41	KEY OUT0	O	Key Matrix output
10	S1	O	FL segment control output	42	KEY OUT1	O	〃
11	S2	O	〃	43	KEY OUT2	O	〃
12	S3	O	〃	44	KEY OUT3	O	〃
13	S4	O	〃	45	KEY IN0	I	Key matrix input
14	S5	O	〃	46	KEY IN1	I	〃
15	S6	O	〃	47	KEY IN2	I	〃
16	S7	O	〃	48	KEY IN3	I	〃
17	S8	O	〃	49	RESET	I	Reset signal input
18	NC	--	Non connection	50	TEST	--	Test mode input (+ 5V)
19	-VDISP	I	Power supply for FL display	51	OSC1	I	Clock oscillation input
20	—	--	Connected to GNG	52	OSC2	O	Clock oscillation output
21	GND	--	GND	53	GND	--	GND
22	—	--	Connected to GND	54	IND	O	Non connection
23	R/W	O	Read / write signal output	55	DCS IN	I	Compulink signal input
24	CLOSE SW	I	"L" with tray closed	56	DCS OUT	O	Compulink signal output
25	OPEN SW	I	"L" with tray open	57	7121/3805	I	Non connection
26	REST SW	I	REST switch signal input	58	NC	--	〃
27	TEST	I	Entering test mode with TEST(L)	59	NC	--	〃
28	CLOSE	O	"CLOSE" signal output	60	NC	--	〃
29	OPEN	O	"OPEN" signal output	61	NC	--	〃
30	TLOF	O	Turns off tracking servo	62	11G	O	FL grid control output
31	GU	O	Increases tracking gain	63	10G	O	〃
32	+5V	--	Power Supply	64	9G	O	〃

■ JCE4501(IC873) : D / A CONVERTER

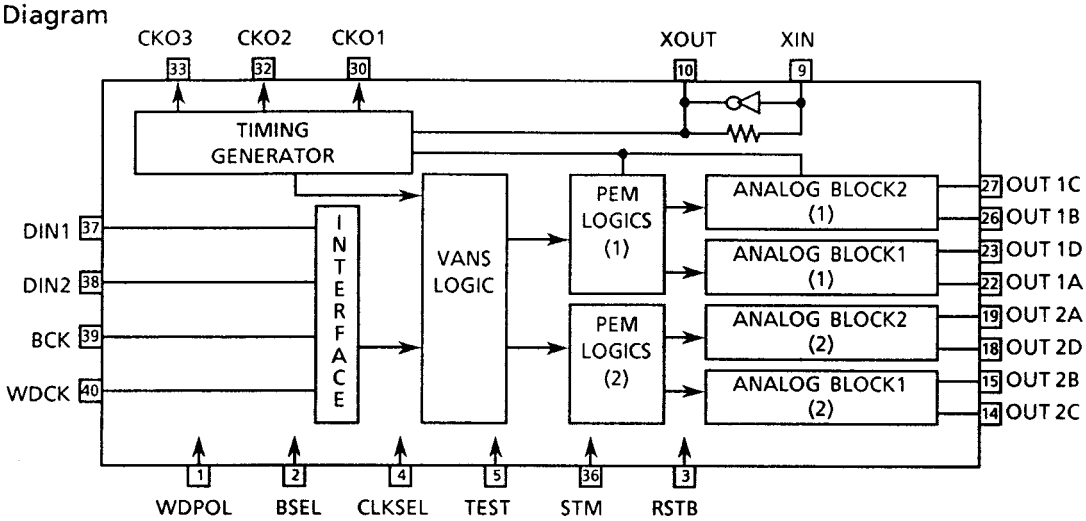
1. Outline

The JCE4501 is a CMOS digital-analog converter with independent left and right channels. It was developed for PCM digital audio equipment. It features pulse edge modulation (PEM) and Victor advanced noise shaping (VANS) for resolution equipment to 20 bits(0-20kHz) and a low distortion ratio. At JVC, this type of digital-analog converter is called a DD converter.

2. Terminal Layout



3. Block Diagram



4.Pin Function Description

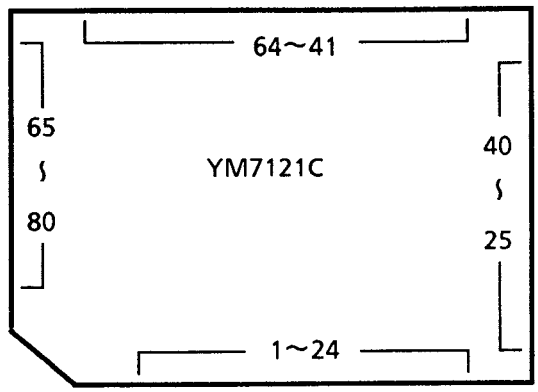
Pin No	Symbol	I/O	Description	Pin No	Symbol	I/O	Description
1	WDPOL	I	Word data polarity switching pin	21	AVSS3	--	Analog ground pin 3
2	BSEL	I	H:CDX2554P format,L: YM3414 format	22	OUT1A	O	1A PEM output pin
3	RSTB	I	Reset pin (low active)	23	OUT1D	O	1D PEM output pin
4	CLKSEL	I	H: 256fs mode,L: 384fs mode	24	AVDD3	--	Analog power supply pin 3
5	TEST	I	Test mode switching pin	25	AVDD4	--	Analog power supply pin 4
6	COM	I	COM board voltage fastening pin	26	OUT1B	O	1B PEM output pin
7	NSUB	I	Silicon board voltage fastening pin	27	OUT1C	O	1C PEM output pin
8	DVDD1	--	Digital power supply pin 1	28	AVSS4	--	Analog ground pin 4
9	XIN	I	Crystal oscillator input pin	29	NC	--	To ground
10	XOUT	O	Crystal oscillator output pin	30	CKO1	O	Clock output pin 1(384fs output)
11	DVSS1	--	Digital ground pin 1	31	DVSS2	--	Digital ground pin 2
12	NC	--	To ground	32	CKO2	O	Clock output pin 2(192fs output)
13	AVSS1	--	Analog ground pin 1	33	CKO3	O	Clock output pin 3(128fs output)
14	OUT2C	O	2C PEM output pin	34	DVDD2	--	Digital power supply pin 2
15	OUT2B	O	2B PEM output pin	35	NC	--	Non connection
16	AVDD1	--	Analog power supply pin 1	36	STM	I	Stereo/Monaural switching pin. H: stereo, L: left channel,reversed polarity left channel
17	AVDD2	--	Analog power supply pin 2	37	DIN1	I	Left channel 18-bits 8Fs serial data input
18	OUT2D	O	2D PEM output pin	38	DIN2	I	Right channel 18-bits 8Fs serial data input
19	OUT2A	O	2A PEM output pin	39	BCK	I	Bit clock input pin
20	AVSS2	--	Analog ground pin 2	40	WDCK	I	Word clock input pin

■ YM7121C(IC841) : Servo controller

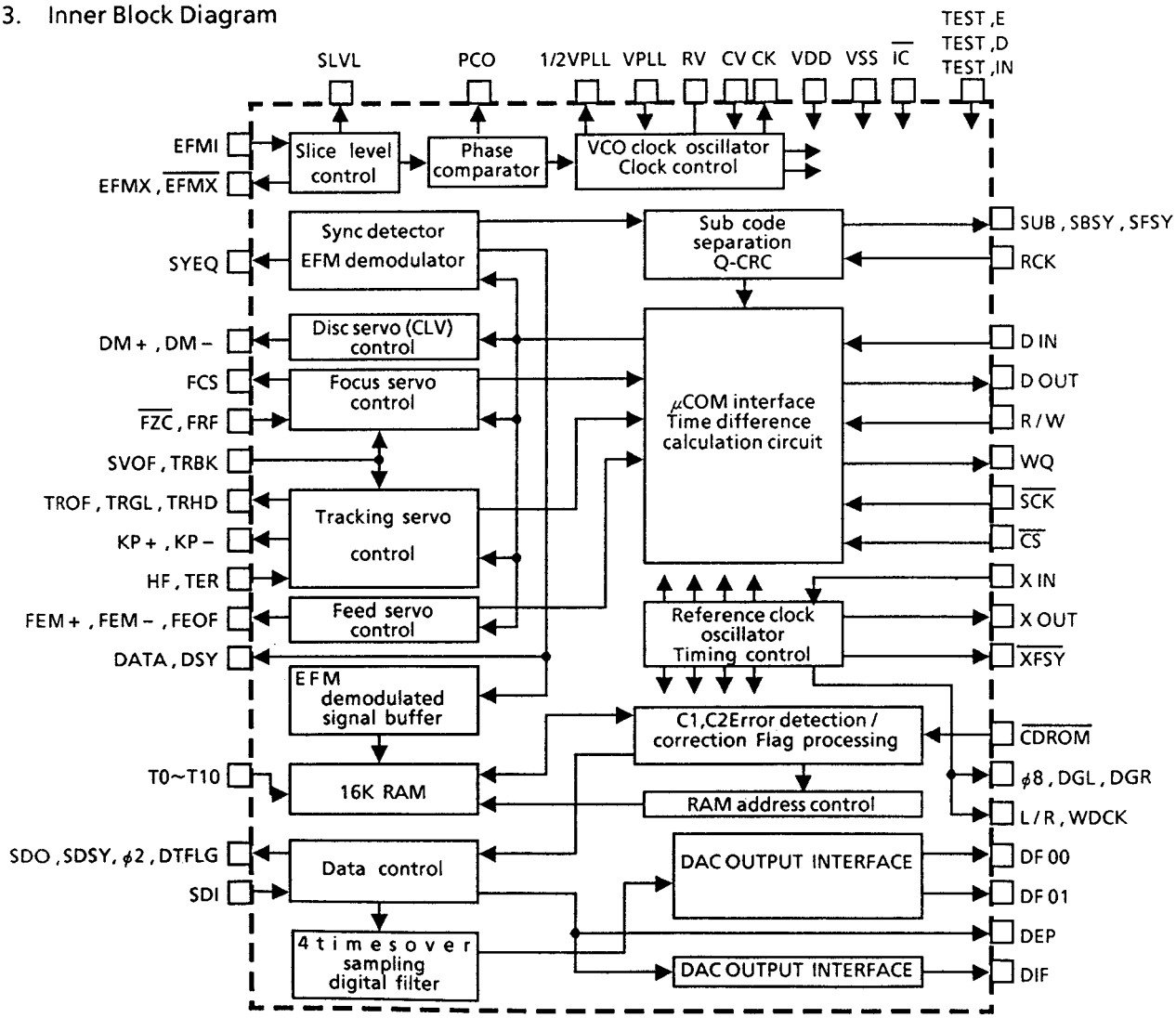
1. Outline

YM7121 is a C-MOS LSI for signal processing and servo control (SVC) in a CD player. It is used for the demodulation of the EFM signal from the laser pick up , detection / correction of the error signal , signal processing in digital filtering , etc. and for various servo controls (focusing , disc , tracking and feed servos).

2. Top View

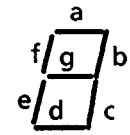


3. Inner Block Diagram

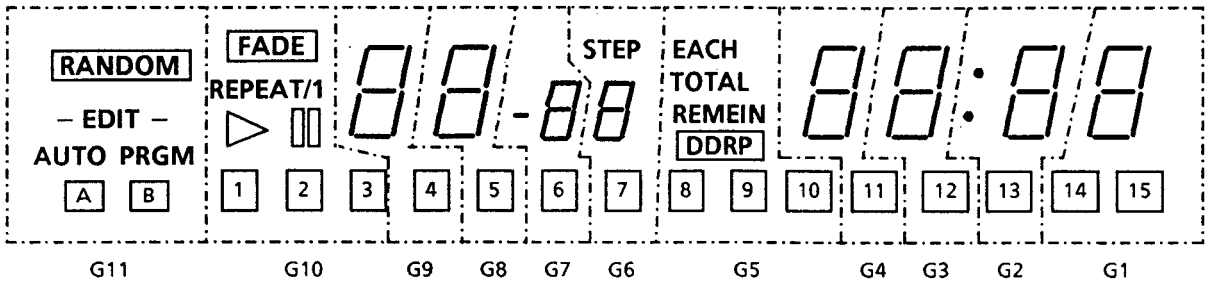


Internal Connections of FL Display Tube

■ ELU0001-114 (FL991)



1. Grid Layout



2. Pin Connection

Terminal No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ELECTRODE	F	F	NP	NC	11G	10G	9G	8G	7G	6G	5G	P1	4G	3G	2G	1G	P2	P3	P4

Terminal No	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
ELECTRODE	P5	P6	P7	P8	P9	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NP	F	F

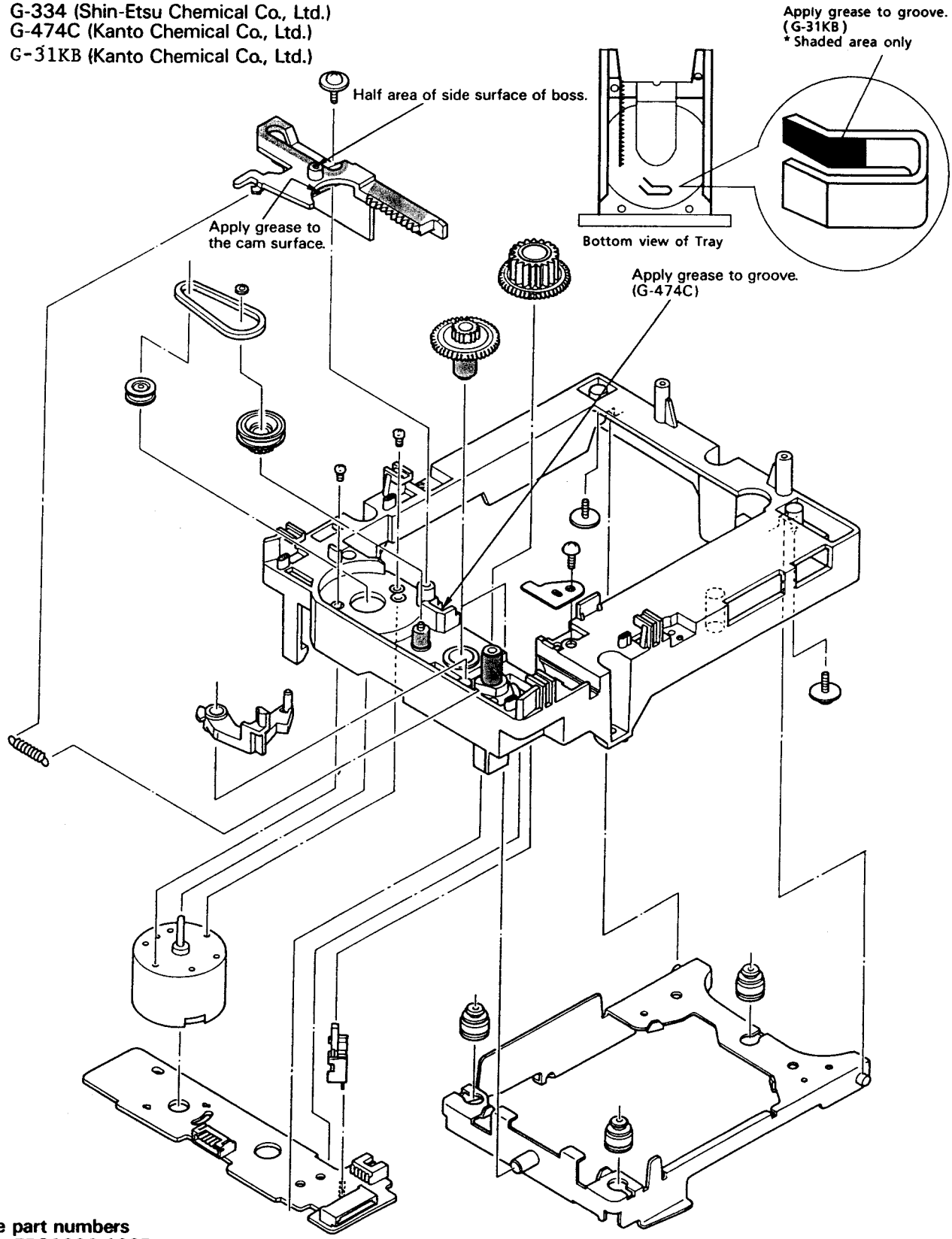
Note ···· F : Filament, G : Grid, Pi : Anode, NP : No pin, NC : No connection

3.Anode connection table

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	–EDIT–	II	a	a	a	a	EACH	a	a	a	a
S2	AUTO	FADE	b	b	b	b	TOTAL	b	b	b	b
S3	PRGM		f	f	f	f	REMAIN	f	f	f	f
S4	B	REPEAT	g	g	g	g	DDRP	g	g	g	g
S5	A	1	c	c	c	c	10	c	c	c	c
S6	RANDOM	1	e	e	e	e	9	e	e	e	e
S7		2	d	d	d	d	8	d	d	d	d
S8		3	4	5	6	7		11	12	13	14
S9		▶			–	STEP				° °	15

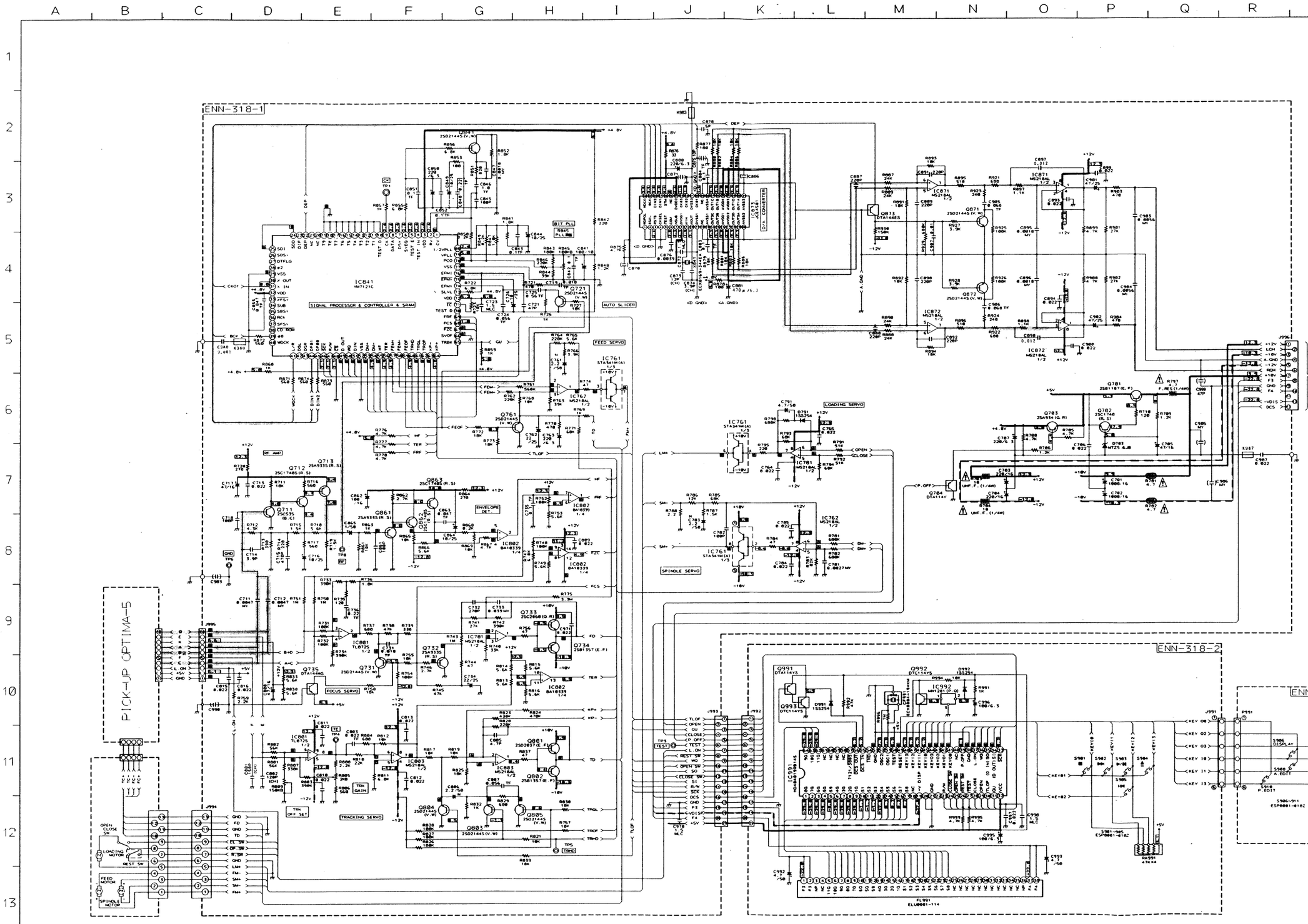
Application Points for Grease

Grease used
- G-334 (Shin-Etsu Chemical Co., Ltd.)
- G-474C (Kanto Chemical Co., Ltd.)
- G-31KB (Kanto Chemical Co., Ltd.)


Half area of side surface of boss.
Apply grease to the cam surface.
Apply grease to groove. (G-31KB) * Shaded area only
Bottom view of Tray
Apply grease to groove. (G-474C)

Grease part numbers
G-334: EBS0006-009B
G-474C: EBS0006-019B
G-31KB: EBS0006-013B

Schematic Diagram



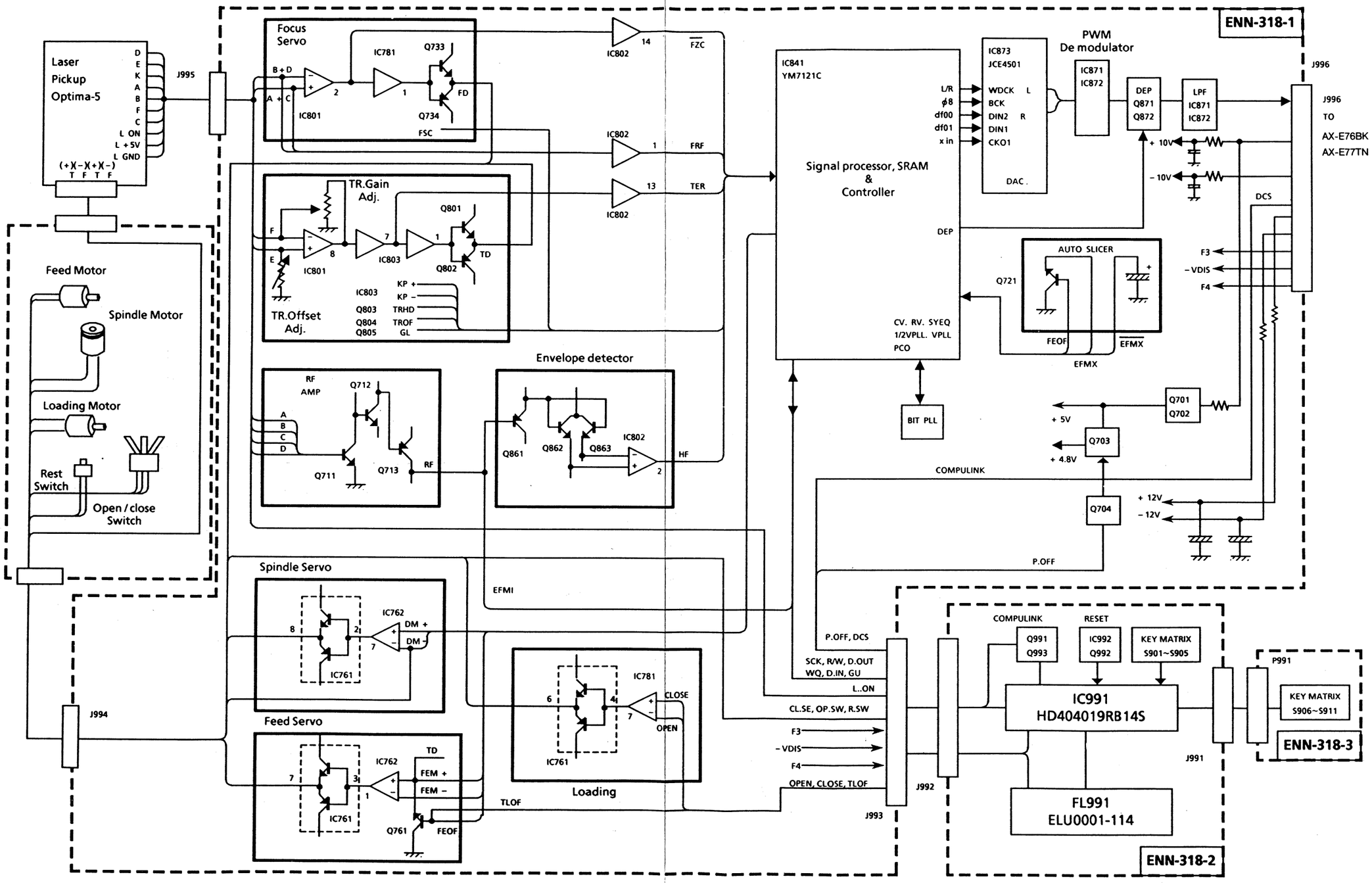
How to Use Schematic Diagrams

1. ▬▬ indicates the +B line.
2. ▬ ▬ ▬ indicates the −B line.
3. indicates signal path.
4. ▭ indicates voltage value.
5. Parts marked with ⚠ and those in the shaded area ▬▬ are parts for safety.
   Be sure to use one with the specified part number.
6. This is the standard circuit diagram. The circuits and circuit constants are subject to change for improvement without notice.

(No. 20354)

XL-E76BK
XL-E77TN

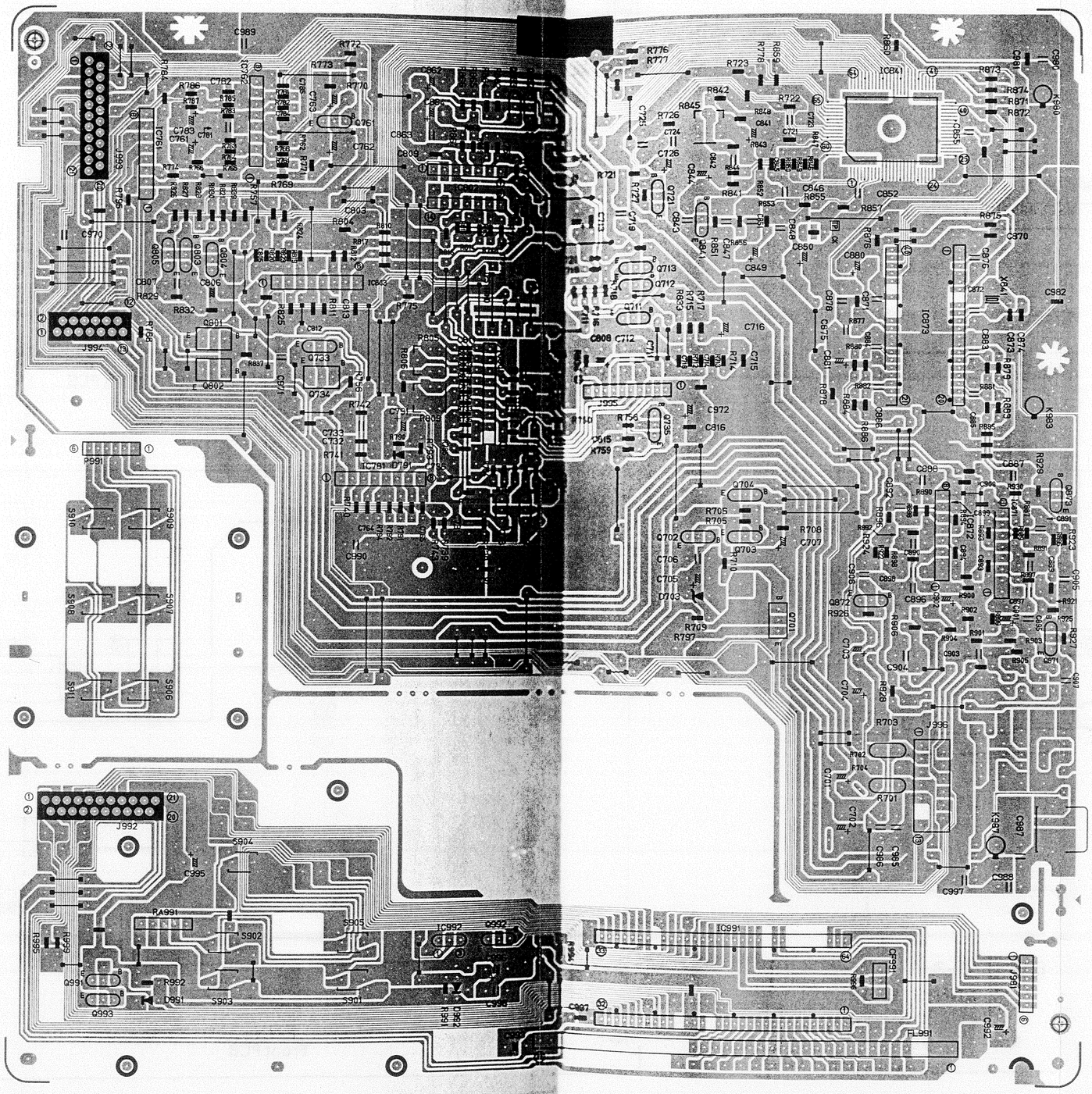
Block Diagram



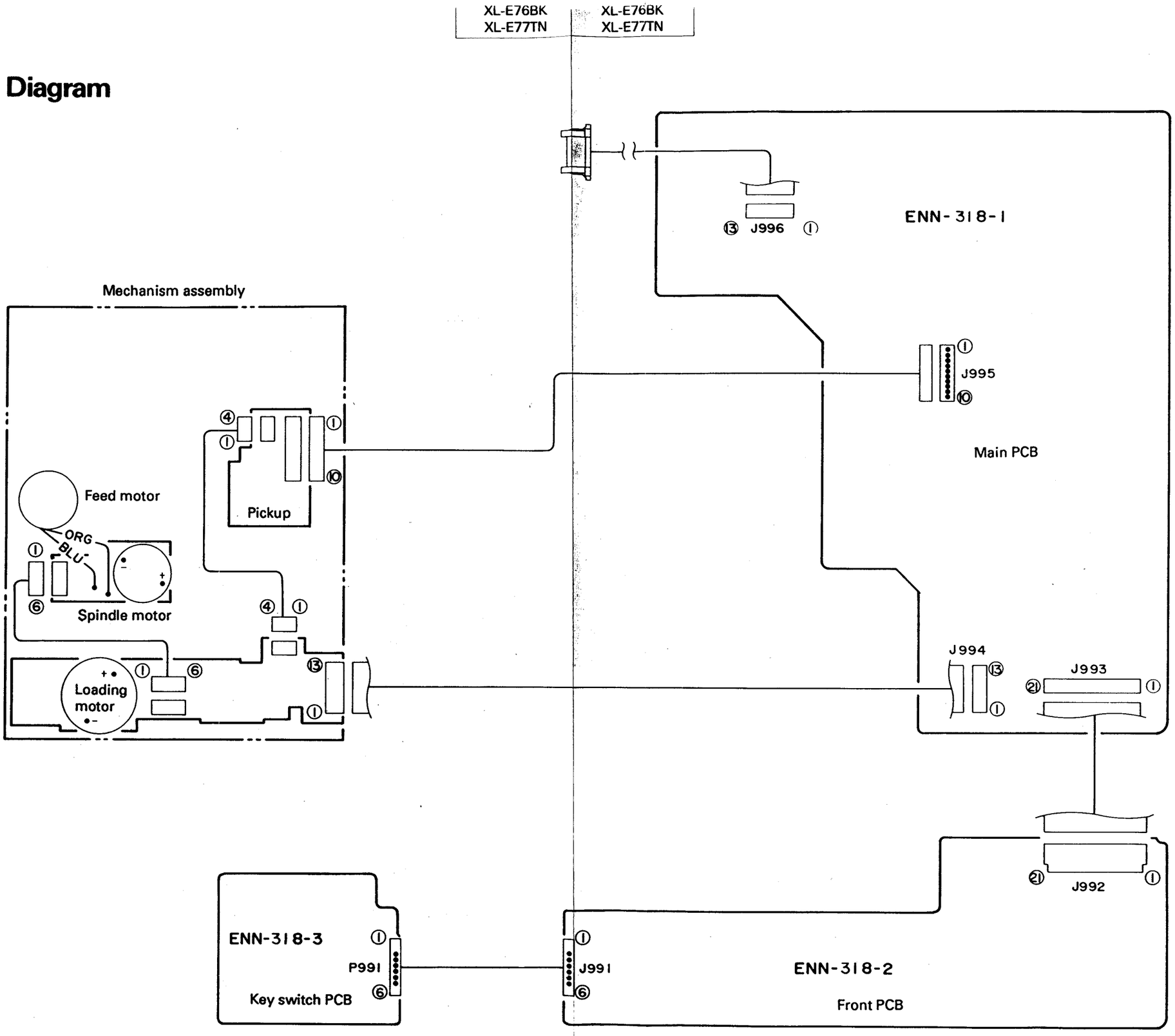
(No. 20354)

Printed Circuit Board

■ CD P.C.B. (ENN-318)



Connection Diagram



PARTS LIST

Contents

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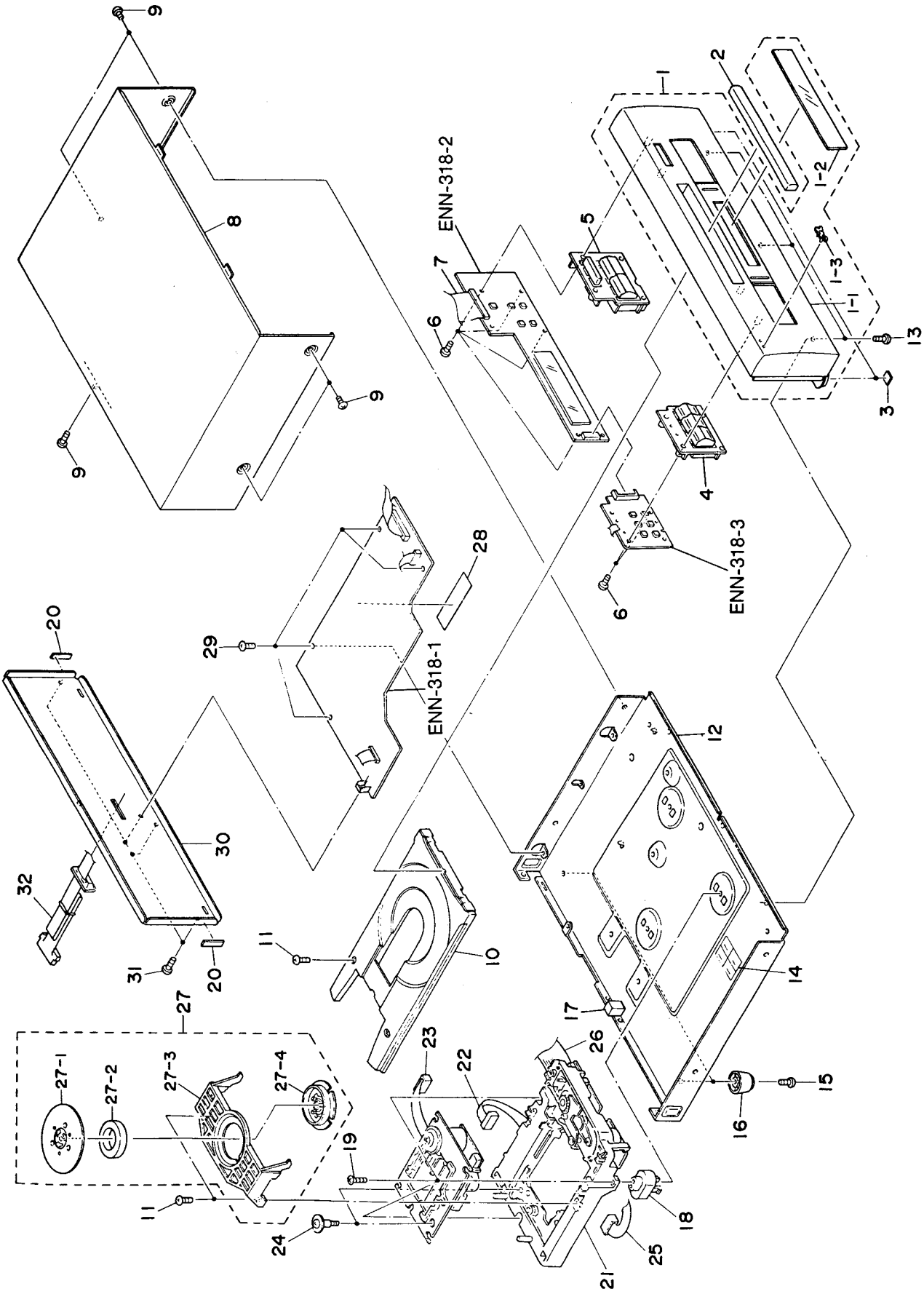
■ ENN-318 □ CD PC Board Ass'y 2-6
Packing Materials and Part Numbers 2-10

General Exploded View and Parts List



■ Parts List

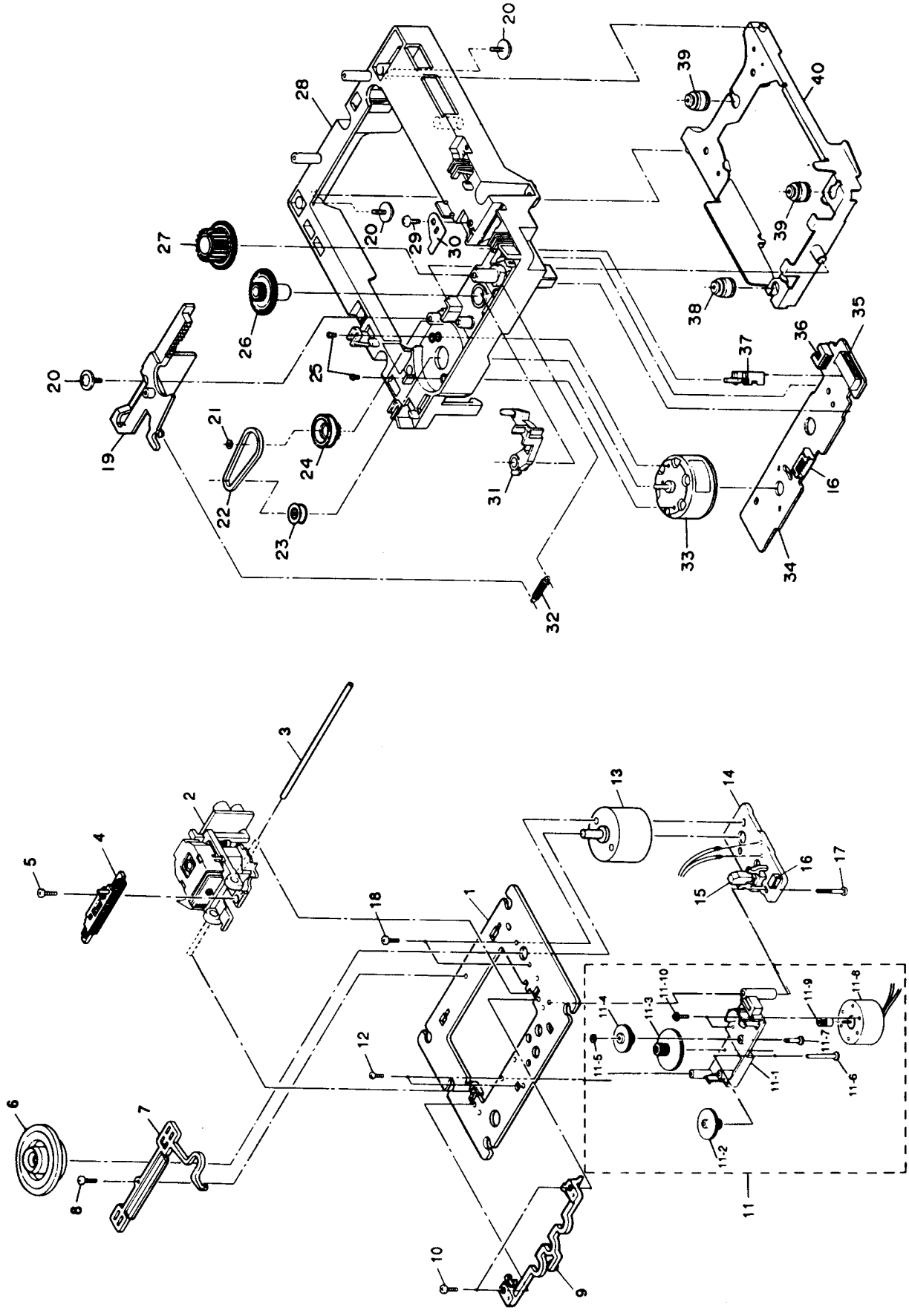
⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-XLE76BKE(S)	Front Panel Ass'y	1		
	1-1	E102523-002SS	Front Panel	1		
	1-2	E307845-001SS	Window Screen	1		
	1-3	E406971-001	JVC Mark	1		
	2	E307844-002SS	Fitting	1		
	3	E75896-001	Spacer	2		
	4	E207308-004SS	Push Button	1	EDIT	
	5	E207307-006SS	Push Button	1	PLAY	
	6	SDSF2608Z	Screw	6		
	7	EWR121G-15TT	Flat Wire	1		
	8	E207383-002	Metal Cover	1		
	9	SDSG3008M	Screw	5		
	10	E12289-222SS	Tray	1		
	11	SBSF3008M	Screw	3		
	12	E102379-003SS	Chassis Base	1		
	13	SDSG3006M	Screw	3		
	14	E406507-001	Caution Label	1		
	15	SBSG3010Z	Screw	2		
	16	E47227-012	Foot	2		
	17	VYSR111-003	Spacer	1		
	18	E307864-001SS	Stand	3		
	19	SBST3020Z	Screw	3		
	20	EXO030005R15S	Spacer	2		
	21	————	CD Mechanism Unit Ass'y	1	See page 2-4	
	22	EWS25A-B303J1	Socket Wire Ass'y	1	10pin	
	23	EWS254-B103J1	Socket Wire Ass'y	1	4pin	
	24	E75871-003	Special Screw	2		
	25	EWS256-B102J1	Socket Wire Ass'y	1	6pin	
	26	EWR613E-10TTJ1	Flat Cable	1	13pin	
	27	E306837-003	CD Clamper Ass'y	1		
	27-1	E306836-003	Yoke	1		
	27-2	E74897-002	Magnet	1		
	27-3	E26756-001	Clamper Bese	1		
	27-4	E306835-001	Clamper	1		
	28	EXO025010A03S07	Spacer	1		
	29	SBSG3008CC	Screw	4		
	30	E207319-010SS	Rear Panel	1		
	31	E73273-006	Special Screw	4		
	32	EWP907-015	Flat Wire Ass'y	1		
	—	E61029-005	Number Label	1		
	—	E70891-001	Class 1 Label	1		
	—	QZL1031-101	SEV Label	1		EF
	—	E70027-001	Approval Label	1		EN

⚠ : Safety Parts

The Marks Designated Areas

EN ..... Scandinavia
EF ..... Continental Europe
BS ..... the U.K.
G ..... Germany
No mark indicates all areas.

CD Mechanism Ass'y and Parts List



■ Parts List

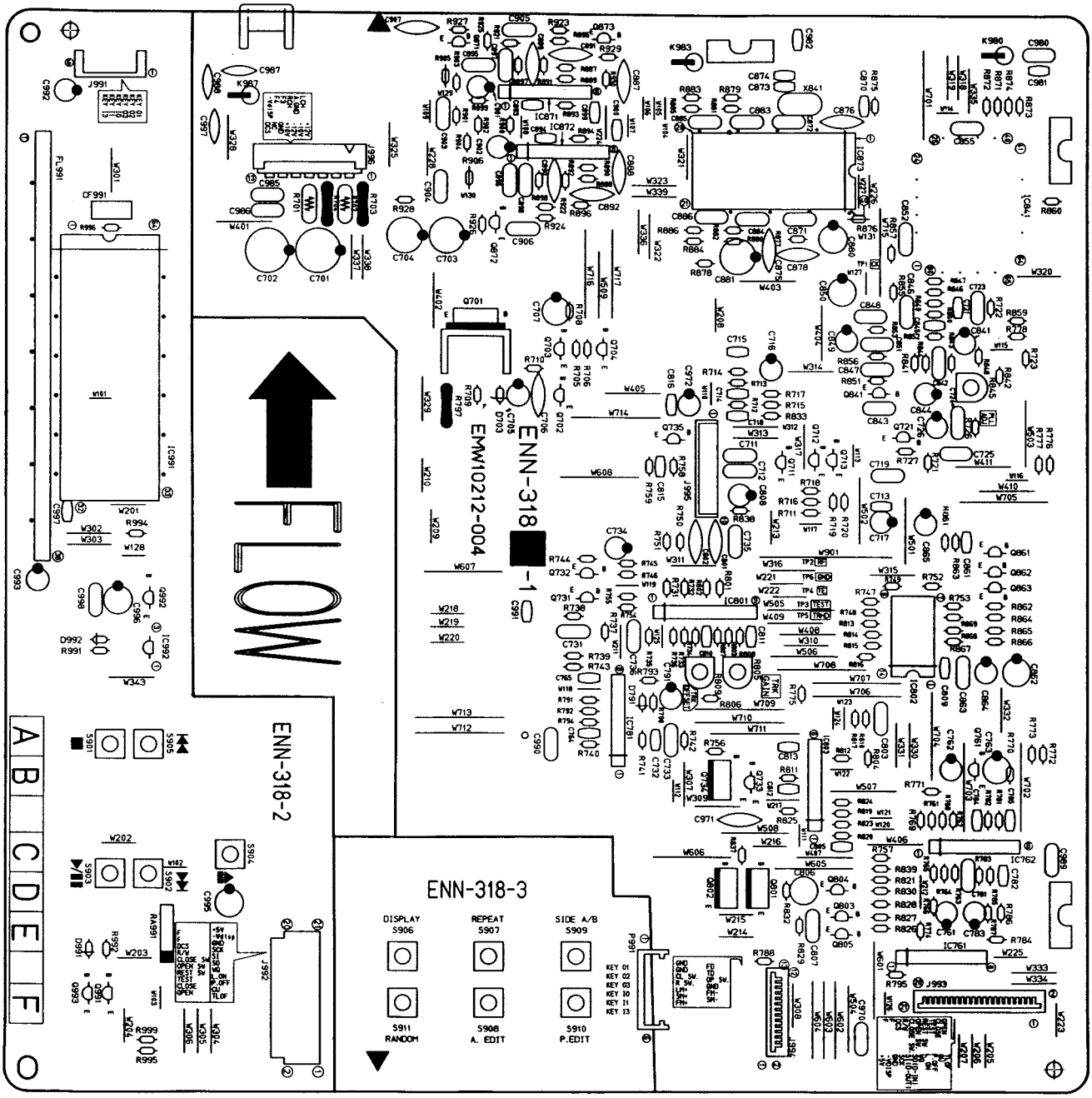
Item	Part Number	Part Name	Q'ty	Description	Areas
1	E26487-003	Mechanism Base	1		
2	OPTIMA-5S	Pick up Ass'y	1		
3	E74930-003	Shaft	1		
4	E306282-001	Rack Ass'y	1		
5	SPSH2050M	Screw	1		
6	E406064-002	Turn Table Ass'y	1		
7	E306275-003	Support	1		
8	SDST2005Z	Screw	1		
9	E306277-001	Holder	1		
10	SDST2004Z	Screw	2		
11	SE10351-11	Gear Ass'y	1		
11-1	E306276-001	Gear Base	1		
11-2	E75444-001	Gear	1		
11-3	E75443-001	Gear	1		
11-4	E75445-001	Gear	1		
11-5	WDM163550	Slit Washer	1		
11-6	E75494-003	Shaft	2		
11-7	E75494-002	Shaft	1		
11-8	HKN-3A6RDNV	Feed Motor	1		
11-9	E75493-001	Pinion Gear	1		
11-10	LPSH1735Z	Screw	2		
12	E72713-001	Special Screw	2		
13	E74539-001B	Spindle Motor	1		
14	E12114-005 (S)	Circuit Board	1		
15	ESB1100-005	Leaf Switch	1	S001	
16	EMV5109-006B	6P Plug Ass'y	2	P011	
17	E75832-001	Special Screw	1		
18	SDSP2003N	Screw	2		
19	E306834-001	Cam	1		
20	E65923-003	Special Screw	3		
21	E72024-001	Speed Nut	1		
22	E75950-002	Belt	1		
23	E75984-001	Motor Pulley	1		
24	E75985-001	Gear (1)	1		
25	SPSK2640Z	Screw	2		
26	E75986-002	Gear (2)	1		
27	E75987-001	Gear (3)	1		
28	E12288-002	Loading Base	1		
29	SBSF3008Z	Screw	1		
30	E75988-001	Plate	1		
31	E306833-001	Lever	1		
32	E75989-001	Spring	1		
33	MMN-6F1LB8Q	Loading Motor	1		
34	EMW10060-002 (S)	Circuit Board	1		
35	EMV7123-013R	Connector	1	13Pin	
36	EMV5109-004B	Plug Ass'y	1	4Pin	
37	ESS1200-002	Switch	1		
38	E75609-002	Insulator	1		
39	E75609-001	Insulator	2		
40	E307087-001	Elevator Base Ass'y	1		

Printed Circuit Board Ass'y and Parts List

■ENN-318 □ CD PC Board Ass'y

Note : ENN-318 □ varies according to the areas employed. See note (1) when placing an order.

※ All printed circuit board assemblies are not available as service parts.



Note (1)

PC Board Ass'y	Designated Areas
ENN-318 B	Continental Europe, Scandinavia the U.K.
ENN-318 C	Germany

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q701	2SB1187(E,F)	SILICON ROHM	
	Q702	2SC1740(R,S)	SILICON ROHM	
	Q703	2SA934(Q,R)	SILICON ROHM	
	Q704	DTA114YS	SILICON ROHM	
	Q711	2SC535(B,C)	SILICON HITACHI	
	Q712	2SC1740S(R,S)	SILICON ROHM	
	Q713	2SA933S(R,S)	SILICON ROHM	
	Q721	2SD2144S(VW)	SILICON ROHM	
	Q731	2SD2144S(VW)	SILICON ROHM	
	Q732	2SA933S(R,S)	SILICON ROHM	
	Q733	2SC2060(Q,R)	SILICON ROHM	
	Q734	2SB1357(E,F)	SILICON ROHM	
	Q735	DTA144WS	SILICON ROHM	
	Q761	2SD2144S(VW)	SILICON ROHM	
	Q801	2SD2037(E,F)	SILICON ROHM	
	Q802	2SB1357(E,F)	SILICON ROHM	
	Q803	2SD2144S(VW)	SILICON ROHM	
	Q804	2SD2144S(VW)	SILICON ROHM	
	Q805	2SD2144S(VW)	SILICON ROHM	
	Q841	2SD2144S(VW)	SILICON ROHM	
	Q861	2SA933S(R,S)	SILICON ROHM	
	Q862	2SC1740S(R,S)	SILICON ROHM	
	Q863	2SC1740S(R,S)	SILICON ROHM	
	Q871	2SD2144S(VW)	SILICON ROHM	
	Q872	2SD2144S(VW)	SILICON ROHM	
	Q873	DTA144ES	SILICON ROHM	
	Q991	DTA114YS	SILICON ROHM	
	Q992	DTC114YS	SILICON ROHM	
	Q993	DTC114YS	SILICON ROHM	

I. C. s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC761	STA341M(A)	I.C. SANKEN	
	IC762	M5218AL	I.C. MITSUBISHI	
	IC781	M5218AL	I.C. MITSUBISHI	
	IC801	TL072S	I.C. DAINICHI	
	IC802	BA10339	I.C. ROHM	
	IC803	M5218AL	I.C. MITSUBISHI	
	IC841	YM7121C	I.C. YAMAHA	
	IC871	M5218AL	I.C. MITSUBISHI	
	IC872	M5218AL	I.C. MITSUBISHI	
	IC873	JCE4501	I.C. MATSUSHITA	
	IC991	HD404019RB14S	I.C. HITACHI	
	IC992	MN1281(P,Q)	I.C. MATSUSHITA	

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D703	MTZ5.6JB	ZENER ROHM	
	D791	1SS254	SILICON ROHM	
	D991	1SS254	SILICON ROHM	
	D992	1SS254	SILICON ROHM	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C701	QETB1CM-108	1000MF 16V ELECTRO	
	C702	QETB1CM-108	1000MF 16V ELECTRO	
	C703	QETB1CM-227	220MF 16V ELECTRO	
	C704	QETB1CM-227	220MF 16V ELECTRO	
	C705	QETB1CM-476	47MF 16V ELECTRO	
	C706	QCF21HP-223	0.022MF 50V CERAMIC	
	C707	QETB0JM-227	220MF 6.3V ELECTRO	
	C711	QFN81HJ-472	4700PF 50V MYLAR	
	C712	QFN81HJ-472	4700PF 50V MYLAR	
	C713	QCHB1EZ-223	0.022MF 25V CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C714	QCSB1HK-3R9	3.9PF 50V CERAMIC	
	C715	QCBB1HK-471	470PF 50V CERAMIC	
	C716	QETB1EM-106	10MF 25V ELECTRO	
	C717	QETB1CM-476	47MF 16V ELECTRO	
	C718	QCBB1HK-101	100PF 50V CERAMIC	
	C719	QFLB1HJ-183	0.018MF 50V MYLAR	
	C721	QCSB1HJ-470	47PF 50V CERAMIC	
	C723	QCZ0202-155	1.5MF 25V CERAMIC	
	C724	QFLB1HJ-563	0.056MF 50V MYLAR	
	C725	QFV81HJ-564	0.56MF 50V T.FILM	
	C726	QETB1EM-106	10MF 25V ELECTRO	
	C731	QFLB1HJ-183	0.018MF 50V MYLAR	
	C732	QCBB1HK-271	270PF 50V CERAMIC	
	C733	QFN81HJ-393	0.039MF 50V MYLAR	
	C734	QETB1EM-226	22MF 25V ELECTRO	
	C735	QFLB1HJ-104	0.1MF 50V MYLAR	
	C736	QFV81HJ-224	0.22MF 50V T.FILM	
	C761	QEN51HM-225	2.2MF 50V NON POLE	
	C762	QETB1EM-226	22MF 25V ELECTRO	
	C763	QETB0JM-227	220MF 6.3V ELECTRO	
	C764	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C765	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C781	QFN81HJ-272	2700PF 50V MYLAR	
	C782	QCBB1HK-101	100PF 50V CERAMIC	
	C783	QEN51HM-225	2.2MF 50V NON POLE	
	C784	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C785	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C791	QETB1HM-475	4.7MF 50V ELECTRO	
	C801	QCT26CH-151	150PF 50V CERAMIC	
	C802	QCT26CH-121	120PF 50V CERAMIC	
	C803	QFLB1HJ-223	0.022MF 50V MYLAR	
	C805	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C806	QEN51HM-225	2.2MF 50V NON POLE	
	C807	QFLB1HJ-563	0.056MF 50V MYLAR	
	C808	QETB1CM-476	47MF 16V ELECTRO	
	C809	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C810	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C811	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C812	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C813	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C815	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C816	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C841	QETB1AM-107	100MF 10V ELECTRO	
	C842	QFLB1HJ-104	0.1MF 50V MYLAR	
	C843	QFLB1HJ-104	0.1MF 50V MYLAR	
	C844	QETB1EM-106	10MF 25V ELECTRO	
	C845	QCBB1HK-101	100PF 50V CERAMIC	
	C846	QFV81HJ-105	1MF 50V T.FILM	
	C847	QFN81HJ-182	1800PF 50V MYLAR	
	C848	QFV81HJ-224	0.22MF 50V T.FILM	
	C849	QETB1EM-106	10MF 25V ELECTRO	
	C850	QETB0JM-227	220MF 6.3V ELECTRO	
	C851	QFLB1HJ-104	0.1MF 50V MYLAR	
	C852	QFLB1HJ-104	0.1MF 50V MYLAR	
	C855	QFLB1HJ-473	0.047MF 50V MYLAR	
	C861	QCBB1HK-101	100PF 50V CERAMIC	
	C862	QETB1CM-107	100MF 16V ELECTRO	
	C863	QFLB1HJ-473	0.047MF 50V MYLAR	
	C864	QETB1EM-106	10MF 25V ELECTRO	
	C865	QETB1HM-105	1MF 50V ELECTRO	
	C871	QFLB1HJ-104	0.1MF 50V MYLAR	
	C872	QCZ0202-155	1.5MF 25V CERAMIC	
	C873	QCT30CH-120	12PF 50V CERAMIC	
	C874	QCT30CH-3R9	3.9PF 50V CERAMIC	
	C875	QCS21HJ-100	10PF 50V CERAMIC	
	C876	QCY21HK-392	3900PF 50V CERAMIC	
	C878	QCS21HJ-5R0	5PF 50V CERAMIC	
	C880	EETC1AM-107ZE	100MF 10V	
	C881	QETB0JM-477	470MF 6.3V ELECTRO	
	C883	QFLB1HJ-104	0.1MF 50V MYLAR	
	C884	QFLB1HJ-104	0.1MF 50V MYLAR	
	C886	QFLB1HJ-104	0.1MF 50V MYLAR	
	C887	QCS21HJ-221	220PF 50V CERAMIC	
	C888	QCS21HJ-221	220PF 50V CERAMIC	
	C889	QCS21HJ-221	220PF 50V CERAMIC	
	C890	QCS21HJ-221	220PF 50V CERAMIC	
	C891	QCS21HJ-221	220PF 50V CERAMIC	
	C892	QCS21HJ-221	220PF 50V CERAMIC	
	C893	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C894	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C895	QFN81HJ-182	1800PF 50V MYLAR	
	C896	QFN81HJ-182	1800PF 50V MYLAR	
	C897	QFV81HJ-123	0.012MF 50V T.FILM	
	C898	QFV81HJ-123	0.012MF 50V T.FILM	
	C899	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C900	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C901	QETB1EM-476	47MF 25V ELECTRO	
	C902	QETB1EM-476	47MF 25V ELECTRO	
	C903	QFN81HJ-562	5600PF 50V MYLAR	
	C904	QFN81HJ-562	5600PF 50V MYLAR	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C905	QFLB1HJ-683	0.068MF	50V	MYLAR	
	C906	QFLB1HJ-683	0.068MF	50V	MYLAR	
	C907	QCF21HP-103	0.01MF	50V	CERAMIC	
	C970	QCZ0202-155	1.5MF	25V	CERAMIC	
	C971	QCF21HP-223	0.022MF	50V	CERAMIC	
	C980	QCF21HP-102	1000PF	50V	CERAMIC	
	C987	QCF21HP-223	0.022MF	50V	CERAMIC	
	C995	QER50JM-107	100MF	6.3V	ELECTRO	
	C996	QETB1AM-107	100MF	10V	ELECTRO	
	C997	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C998	QCZ0202-155	1.5MF	25V	CERAMIC	
	C999	QCS21HJ-470	47PF	50V	CERAMIC	

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R701	PTH61G25AR4R7M			FUSIBLE RE	SI
⚠	R702	PTH61G25AR4R7M			FUSIBLE RE	SI
⚠	R703	QRZ0077-100	10	1/4W	FUSIBLE	
⚠	R704	QRZ0077-100	10	1/4W	FUSIBLE	
	R705	QRD167J-472	4.7K	1/6W	CARBON	
	R706	QRD167J-122	1.2K	1/6W	CARBON	
	R708	QRD167J-472	4.7K	1/6W	CARBON	
	R709	QRD167J-122	1.2K	1/6W	CARBON	
	R710	QRD167J-121	120	1/6W	CARBON	
	R711	QRD167J-183	18K	1/6W	CARBON	
	R712	QRD167J-432	4.3K	1/6W	CARBON	
	R713	QRD167J-391	390	1/6W	CARBON	
	R714	QRD161J-221	220	1/6W	CARBON	
	R715	QRD167J-152	1.5K	1/6W	CARBON	
	R716	QRD167J-561	560	1/6W	CARBON	
	R717	QRD167J-561	560	1/6W	CARBON	
	R718	QRD167J-562	5.6K	1/6W	CARBON	
	R719	QRD167J-152	1.5K	1/6W	CARBON	
	R720	QRD167J-271	270	1/6W	CARBON	
	R721	QRD167J-471	470	1/6W	CARBON	
	R722	QRD167J-682	6.8K	1/6W	CARBON	
	R723	QRD167J-103	10K	1/6W	CARBON	
	R726	QRD167J-102	1K	1/6W	CARBON	
	R727	QRD167J-183	18K	1/6W	CARBON	
	R731	QRD167J-104	100K	1/6W	CARBON	
	R732	QRD167J-104	100K	1/6W	CARBON	
	R733	QRD167J-394	390K	1/6W	CARBON	
	R734	QRD167J-394	390K	1/6W	CARBON	
	R735	QRD167J-121	120	1/6W	CARBON	
	R736	QRD167J-182	1.8K	1/6W	CARBON	
	R737	QRD167J-681	680	1/6W	CARBON	
	R738	QRD167J-473	47K	1/6W	CARBON	
	R739	QRD167J-331	330	1/6W	CARBON	
	R740	QRD167J-333	33K	1/6W	CARBON	
	R741	QRD167J-273	27K	1/6W	CARBON	
	R742	QRD167J-394	390K	1/6W	CARBON	
	R743	QRD167J-105	1M	1/6W	CARBON	
	R744	QRD167J-470	47	1/6W	CARBON	
	R745	QRD167J-473	47K	1/6W	CARBON	
	R746	QRD167J-272	2.7K	1/6W	CARBON	
	R747	QRD167J-682	6.8K	1/6W	CARBON	
	R748	QRD167J-104	100K	1/6W	CARBON	
	R749	QRD167J-562	5.6K	1/6W	CARBON	
	R750	QRD167J-105	1M	1/6W	CARBON	
	R751	QRD167J-105	1M	1/6W	CARBON	
	R752	QRD167J-104	100K	1/6W	CARBON	
	R753	QRD167J-562	5.6K	1/6W	CARBON	
	R754	QRD167J-104	100K	1/6W	CARBON	
	R755	QRD167J-103	10K	1/6W	CARBON	
	R756	QRD167J-470	47	1/6W	CARBON	
	R757	QRD167J-183	18K	1/6W	CARBON	
	R758	QRD167J-183	18K	1/6W	CARBON	
	R759	QRD167J-222	2.2K	1/6W	CARBON	
	R761	QRD167J-564	560K	1/6W	CARBON	
	R762	QRD167J-224	220K	1/6W	CARBON	
	R763	QRD167J-393	39K	1/6W	CARBON	
	R764	QRD167J-224	220K	1/6W	CARBON	
	R765	QRD167J-562	5.6K	1/6W	CARBON	
	R766	QRD167J-392	3.9K	1/6W	CARBON	
	R768	QRD167J-103	10K	1/6W	CARBON	
	R769	QRD167J-102	1K	1/6W	CARBON	
	R770	QRD167J-471	470	1/6W	CARBON	
	R771	QRD167J-683	68K	1/6W	CARBON	
	R772	QRD167J-183	18K	1/6W	CARBON	
	R773	QRD167J-183	18K	1/6W	CARBON	
	R774	QRD167J-470	47	1/6W	CARBON	
	R775	QRD167J-335	3.3M	1/6W	CARBON	
	R776	QRD167J-472	4.7K	1/6W	CARBON	
	R777	QRD167J-472	4.7K	1/6W	CARBON	
	R778	QRD167J-472	4.7K	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R781	QRD167J-684	680K	1/6W	CARBON	
	R782	QRD167J-684	680K	1/6W	CARBON	
	R783	QRD167J-823	82K	1/6W	CARBON	
	R784	QRD167J-470	47	1/6W	CARBON	
	R785	QRD167J-683	68K	1/6W	CARBON	
	R786	QRD167J-123	12K	1/6W	CARBON	
	R787	QRD167J-152	1.5K	1/6W	CARBON	
	R788	QRD167J-2R2	2.2	1/6W	CARBON	
	R790	QRD167J-684	680K	1/6W	CARBON	
	R791	QRD167J-513	51K	1/6W	CARBON	
	R792	QRD167J-513	51K	1/6W	CARBON	
	R793	QRD167J-683	68K	1/6W	CARBON	
	R794	QRD167J-683	68K	1/6W	CARBON	
	R795	QRD161J-221	220	1/6W	CARBON	
⚠	R797	QRZ0077-4R7	4.7	1/4W	FUSIBLE	
	R801	QRD167J-563	56K	1/6W	CARBON	
	R802	QRD167J-563	56K	1/6W	CARBON	
	R803	QRD167J-394	390K	1/6W	CARBON	
	R804	QRD167J-681	680	1/6W	CARBON	
	R805	QVPA601-202A	2K		VARIABLE	
	R806	QRD167J-561	560	1/6W	CARBON	
	R807	QRD167J-334	330K	1/6W	CARBON	
	R808	QRD167J-222	2.2K	1/6W	CARBON	
	R809	QVPA601-154A	150K		VARIABLE	
	R810	QRD167J-223	22K	1/6W	CARBON	
	R811	QRD167J-682	6.8K	1/6W	CARBON	
	R812	QRD167J-103	10K	1/6W	CARBON	
	R813	QRD167J-562	5.6K	1/6W	CARBON	
	R814	QRD167J-562	5.6K	1/6W	CARBON	
	R815	QRD167J-562	5.6K	1/6W	CARBON	
	R816	QRD167J-562	5.6K	1/6W	CARBON	
	R817	QRD167J-183	18K	1/6W	CARBON	
	R819	QRD167J-103	10K	1/6W	CARBON	
	R820	QRD167J-224	220K	1/6W	CARBON	
	R821	QRD167J-103	10K	1/6W	CARBON	
	R823	QRD167J-434	430K	1/6W	CARBON	
	R824	QRD167J-474	470K	1/6W	CARBON	
	R825	QRD167J-103	10K	1/6W	CARBON	
	R826	QRD167J-184	180K	1/6W	CARBON	
	R827	QRD167J-104	100K	1/6W	CARBON	
	R828	QRD167J-104	100K	1/6W	CARBON	
	R829	QRD167J-681	680	1/6W	CARBON	
	R830	QRD167J-183	18K	1/6W	CARBON	
	R832	QRD167J-102	1K	1/6W	CARBON	
	R833	QRD167J-562	5.6K	1/6W	CARBON	
	R837	QRD167J-470	47	1/6W	CARBON	
	R838	QRD167J-562	5.6K	1/6W	CARBON	
	R839	QRD167J-183	18K	1/6W	CARBON	
	R841	QRD167J-182	1.8K	1/6W	CARBON	
	R842	QRD161J-221	220	1/6W	CARBON	
	R843	QRD167J-184	180K	1/6W	CARBON	
	R844	QRD167J-393	39K	1/6W	CARBON	
	R845	QVPA601-104A	100K		VARIABLE	
	R846	QRD167J-224	220K	1/6W	CARBON	
	R847	QRD167J-182	1.8K	1/6W	CARBON	
	R848	QRD167J-122	1.2K	1/6W	CARBON	
	R849	QRD167J-822	8.2K	1/6W	CARBON	
	R850	QRD167J-822	8.2K	1/6W	CARBON	
	R851	QRD167J-821	820	1/6W	CARBON	
	R852	QRD167J-182	1.8K	1/6W	CARBON	
	R853	QRD167J-101	100	1/6W	CARBON	
	R855	QRD167J-682	6.8K	1/6W	CARBON	
	R856	QRD167J-682	6.8K	1/6W	CARBON	
	R857	QRD167J-102	1K	1/6W	CARBON	
	R859	QRD167J-102	1K	1/6W	CARBON	
	R860	QRD167J-102	1K	1/6W	CARBON	
	R861	QRD167J-103	10K	1/6W	CARBON	
	R862	QRD167J-272	2.7K	1/6W	CARBON	
	R863	QRD167J-102	1K	1/6W	CARBON	
	R864	QRD167J-271	270	1/6W	CARBON	
	R865	QRD167J-103	10K	1/6W	CARBON	
	R866	QRD167J-562	5.6K	1/6W	CARBON	
	R867	QRD167J-472	4.7K	1/6W	CARBON	
	R868	QRD167J-822	8.2K	1/6W	CARBON	
	R869	QRD167J-103	10K	1/6W	CARBON	
	R871	QRD167J-561	560	1/6W	CARBON	
	R872	QRD167J-561	560	1/6W	CARBON	
	R873	QRD167J-561	560	1/6W	CARBON	
	R874	QRD167J-561	560	1/6W	CARBON	
	R875	QRD167J-472	4.7K	1/6W	CARBON	
	R876	QRD167J-560	56	1/6W	CARBON	
	R877	QRD167J-181	180	1/6W	CARBON	
	R878	QRD167J-101	100	1/6W	CARBON	
	R879	QRD167J-183	18K	1/6W	CARBON	
	R880	QRD167J-183	18K	1/6W	CARBON	
	R881	QRD167J-183	18K	1/6W	CARBON	
	R882	QRD167J-183	18K	1/6W	CARBON	
	R883	QRD167J-183	18K	1/6W	CARBON	
	R884	QRD167J-183	18K	1/6W	CARBON	
	R885	QRD167J-183	18K	1/6W	CARBON	
	R886	QRD167J-183	18K	1/6W	CARBON	
	R887	QRD167J-243	24K	1/6W	CARBON	
	R888	QRD167J-243	24K	1/6W	CARBON	
	R889	QRD167J-243	24K	1/6W	CARBON	
	R890	QRD167J-243	24K	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R891	QRD167J-183	18K 1/6W CARBON	
	R892	QRD167J-183	18K 1/6W CARBON	
	R893	QRD167J-183	18K 1/6W CARBON	
	R894	QRD167J-183	18K 1/6W CARBON	
	R895	QRD167J-511	510 1/6W CARBON	
	R896	QRD167J-511	510 1/6W CARBON	
	R897	QRD167J-112	1.1K 1/6W CARBON	
	R898	QRD167J-112	1.1K 1/6W CARBON	
	R899	QRD167J-472	4.7K 1/6W CARBON	
	R900	QRD167J-472	4.7K 1/6W CARBON	
	R901	QRD167J-273	27K 1/6W CARBON	
	R902	QRD167J-273	27K 1/6W CARBON	
	R903	QRD167J-471	470 1/6W CARBON	
	R904	QRD167J-471	470 1/6W CARBON	
	R921	QRD167J-681	680 1/6W CARBON	
	R922	QRD167J-681	680 1/6W CARBON	
	R923	QRD167J-241	240 1/6W CARBON	
	R924	QRD167J-241	240 1/6W CARBON	
	R925	QRD167J-104	100K 1/6W CARBON	
	R926	QRD167J-104	100K 1/6W CARBON	
	R927	QRD167J-392	3.9K 1/6W CARBON	
	R928	QRD167J-392	3.9K 1/6W CARBON	
	R929	QRD167J-684	680K 1/6W CARBON	
	R930	QRD167J-154	150K 1/6W CARBON	
	R991	QRD167J-102	1K 1/6W CARBON	
	R992	QRD167J-473	47K 1/6W CARBON	
	R994	QRD167J-103	10K 1/6W CARBON	
	R995	QRD167J-472	4.7K 1/6W CARBON	
	R996	QRD167J-105	1M 1/6W CARBON	
	R999	QRD167J-472	4.7K 1/6W CARBON	
	RA991	QRB045J-473M	47K 1/8W R.NETWORK	

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10212-004	PRINTED BOARD	
		E306805-010	SPACER	
		E306951-002	FL DISPLAY HOLDER	
		E70225-001	EARTH PLATE	
		E70306-001	HEAT SINK	
		E70859-001	EARTH PLATE	
		SBSE3008CC	SCREW	
	J991	EMV7120-006	CONNECTOR 6PIN : KEY MATRIX	
	J992	EMV7123-021R	CONNECTOR 21PIN : FRONT PCB	
	J993	EMV7123-021	CONNECTOR 21PIN : To FRONT	
	J994	EMV7123-013	CONNECTOR 13PIN : To MECHA	
	J995	EMV5109-010A	PLUG ASSY 10PIN : Pickup	
	J996	EMV7141-013M	CONNECTOR 13PIN : SYSTEM CONNECTOR.	
	K980	ENZ8101-008	INDUCTOR	
	K983	ENZ8101-008	INDUCTOR	
	K987	ENZ8101-008	INDUCTOR	
	P991	EMV5120-006	PLUG ASSY 6PIN : KEY MATRIX	
	S901	ESP0001-018	TACT SWITCH STOP	
	S902	ESP0001-018	TACT SWITCH SKIP +	
	S903	ESP0001-018	TACT SWITCH PLAY/PAUSE	
	S904	ESP0001-018	TACT SWITCH OPEN/CLOSE	
	S905	ESP0001-018	TACT SWITCH SKIP—	
	S906	ESP0001-018	TACT SWITCH DISPLAY	
	S907	ESP0001-018	TACT SWITCH REPEAT	
	S908	ESP0001-018	TACT SWITCH A.EDIT	
	S909	ESP0001-018	TACT SWITCH SIDE A/B	
	S910	ESP0001-018	TACT SWITCH P.EDIT	
	S911	ESP0001-018	TACT SWITCH RANDOM	
	X841	ECX0169-344EA	RESONATOR	
	CF991	ECX0004-194KM	RESONATOR	
	FL991	ELU0001-114	FL TUBE	

PARTS LIST

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■ ENN-318 □ CD PC Board Ass'y 3-6
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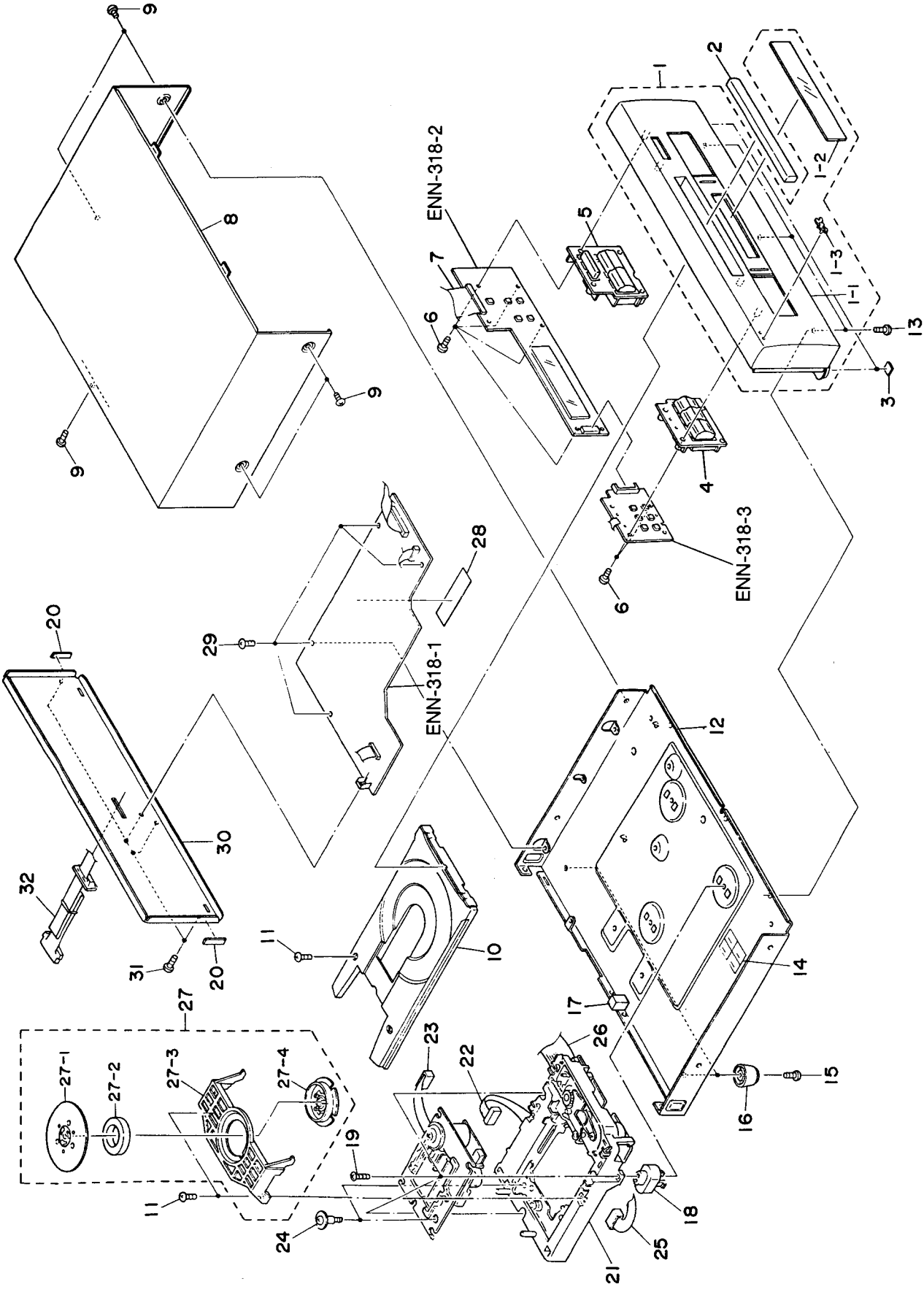
General Exploded View and Parts List



■ Parts List

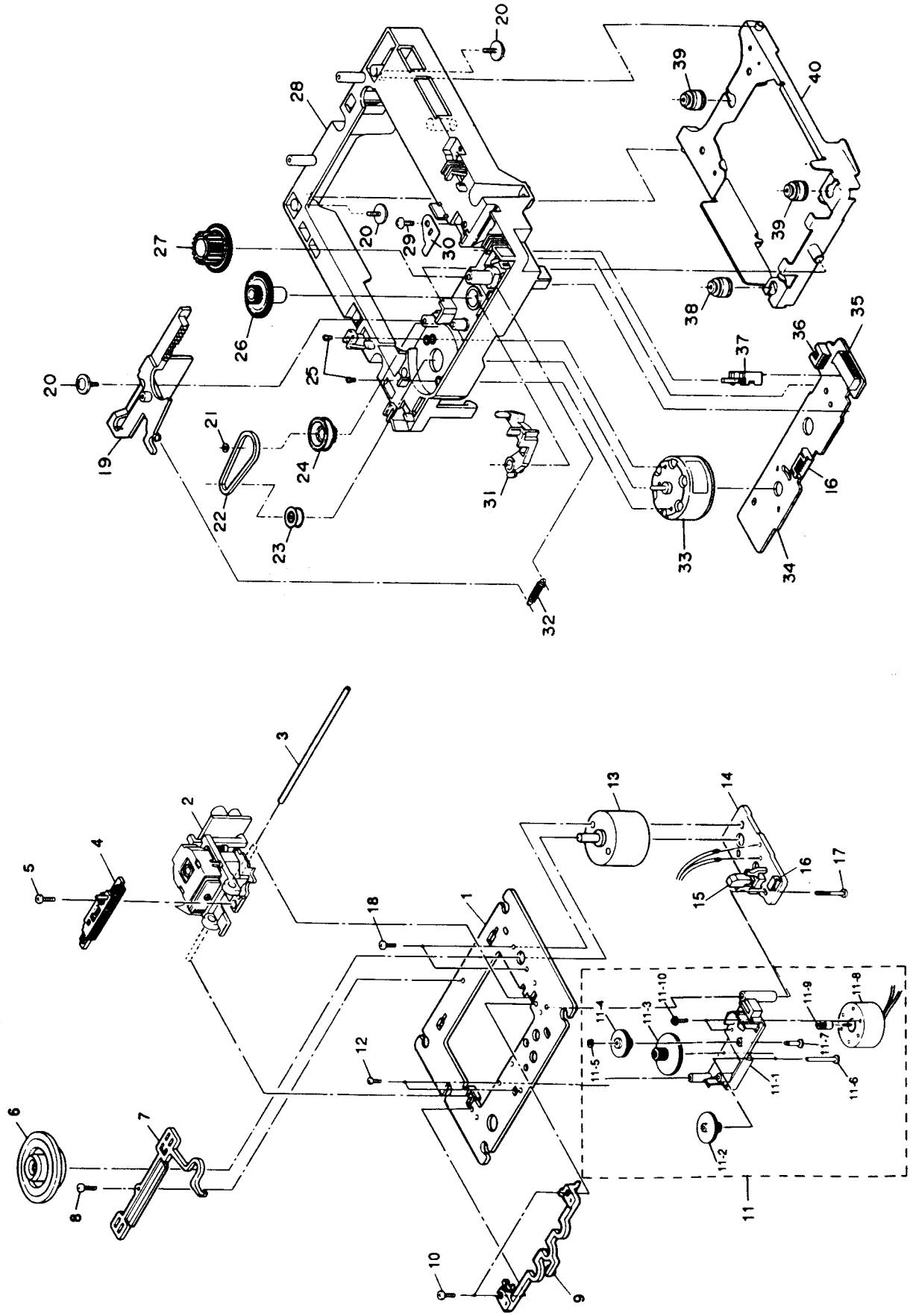
⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-XLE77TNE(S)	Front Panel Ass'y	1		
	1-1	E102523-001SS	Front Panel	1		
	1-2	E307845-001SS	Window Screen	1		
	1-3	E406971-001	JVC Mark	1		
	2	E307844-001SS	Fitting	1		
	3	E75896-001	Spacer	2		
	4	E207308-003SS	Push Button	1	EDIT	
	5	E207307-005SS	Push Button	1	PLAY	
	6	SDSF2608Z	Screw	6		
	7	EWR621G-15TTJ2	Flat Wire	1		
	8	E207383-002	Metal Cover	1		
	9	SDSG3008M	Screw	5		
	10	E12289-221SS	Tray	1		
	11	SBSF3008M	Screw	3		
	12	E102379-003SS	Chassis Base	1		
	13	SDSG3006M	Screw	3		
	14	E406507-001	Caution Label	1		
	15	SBSG3010Z	Screw	2		
	16	E47227-012	Foot	2		
	17	VYSR111-003	Spacer	1		
	18	E307864-001SS	Stand	3		
	19	SBST3020Z	Screw	3		
	20	EXO030005R15S	Spacer	2		
	21	————	CD Mechanism Unit Ass'y	1	See page 3-4	
	22	EWS25A-B303J1	Socket Wire Ass'y	1	10pin	
	23	EWS254-B103J1	Socket Wire Ass'y	1	4pin	
	24	E75871-003	Special Screw	2		
	25	EWS256-B102J1	Socket Wire Ass'y	1	6pin	
	26	EWR613E-10TTJ1	Flat Cable	1	13pin	
	27	E306837-003	CD Clamper Ass'y	1		
	27-1	E306836-003	Yoke	1		
	27-2	E74897-002	Magnet	1		
	27-3	E26756-001	Clamper Bese	1		
	27-4	E306835-001	Clamper	1		
	28	EXO025010A03S07	Spacer	1		
	29	SBSG3008CC	Screw	4		
	30	E207319-008SS	Rear Panel	1	Made in Singapore	A,EF,EN,GI
		E207319-009SS	Rear Panel	1		U
	—	E407136-001	Label	1	Made in Singapore	U
	31	E73273-006	Special Screw	4		
	32	EWP907-015	Flat Wire Ass'y	1		
	—	E61029-005	Number Label	1		U
	—	E70891-001	Class 1 Label	1		
	—	QZL1031-101	SEV Label	1		EF
	—	E70027-001	Approval Label	1		EN

⚠ : Safety Parts

The Marks Designated Areas

A ..... Australia
EF ..... Continental Europe
EN ..... Scandinavia
GI ..... Italy
U ..... Universal Type
No mark indicates all areas.

CD Mechanism Ass'y and Parts List



■ Parts List

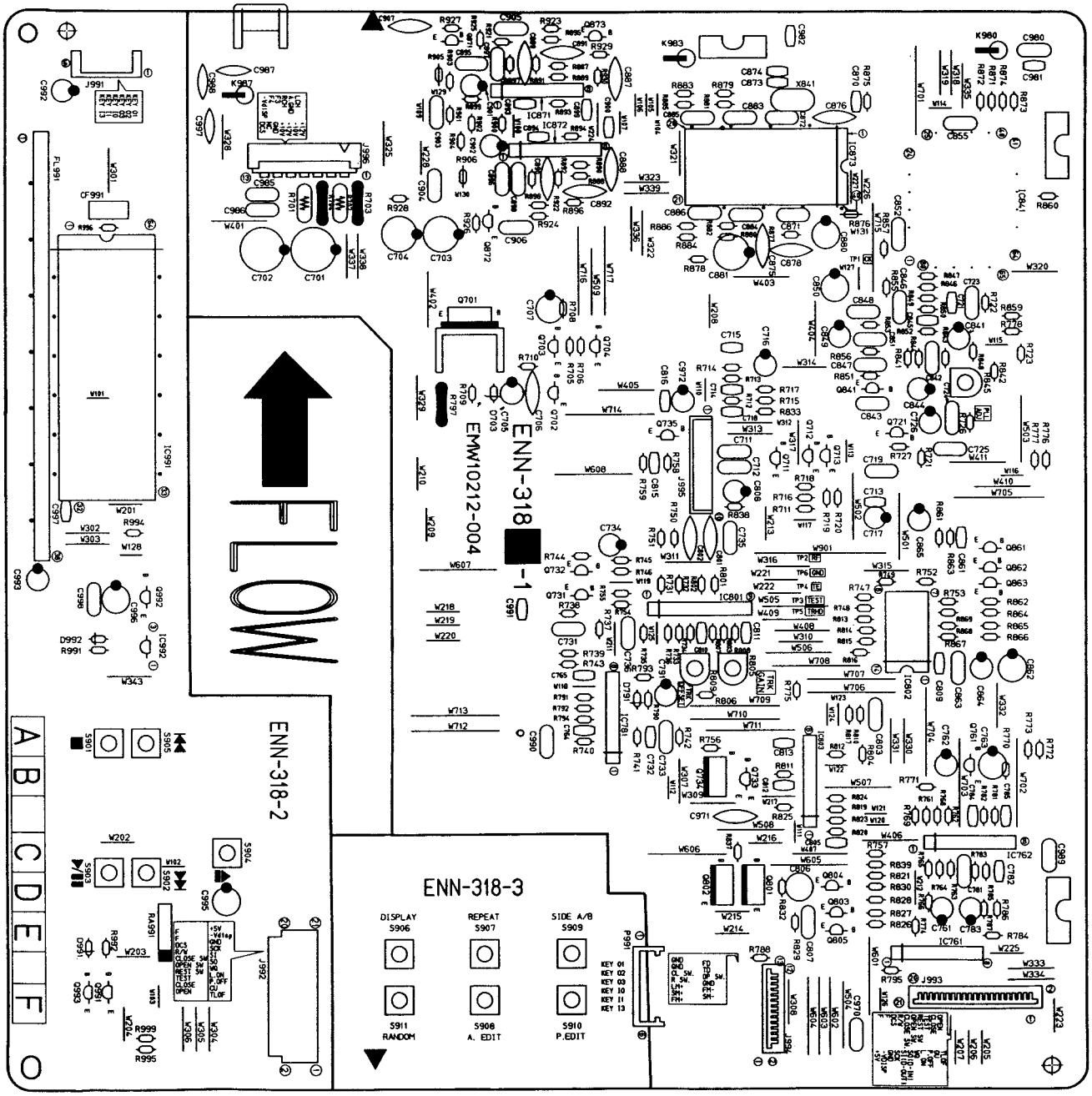
Item	Part Number	Part Name	Q'ty	Description	Areas
1	E26487-003	Mechanism Base	1		
2	OPTIMA-5S	Pick up Ass'y	1		
3	E74930-003	Shaft	1		
4	E306282-001	Rack Ass'y	1		
5	SPSH2050M	Screw	1		
6	E406064-002	Turn Table Ass'y	1		
7	E306275-003	Support	1		
8	SDST2005Z	Screw	1		
9	E306277-001	Holder	1		
10	SDST2004Z	Screw	2		
11	SE10351-11	Gear Ass'y	1		
11-1	E306276-001	Gear Base	1		
11-2	E75444-001	Gear	1		
11-3	E75443-001	Gear	1		
11-4	E75445-001	Gear	1		
11-5	WDM163550	Slit Washer	1		
11-6	E75494-003	Shaft	2		
11-7	E75494-002	Shaft	1		
11-8	HKN-3A6RDNV	Feed Motor	1		
11-9	E75493-001	Pinion Gear	1		
11-10	LPSH1735Z	Screw	2		
12	E72713-001	Special Screw	2		
13	E74539-001B	Spindle Motor	1		
14	E12114-005 (S)	Circuit Board	1		
15	ESB1100-005	Leaf Switch	1	S001	
16	EMV5109-006B	6P Plug Ass'y	2	P011	
17	E75832-001	Special Screw	1		
18	SDSP2003N	Screw	2		
19	E306834-001	Cam	1		
20	E65923-003	Special Screw	3		
21	E72024-001	Speed Nut	1		
22	E75950-002	Belt	1		
23	E75984-001	Motor Pulley	1		
24	E75985-001	Gear (1)	1		
25	SPSK2640Z	Screw	2		
26	E75986-002	Gear (2)	1		
27	E75987-001	Gear (3)	1		
28	E12288-002	Loading Base	1		
29	SBSF3008Z	Screw	1		
30	E75988-001	Plate	1		
31	E306833-001	Lever	1		
32	E75989-001	Spring	1		
33	MMN-6F1LB8Q	Loading Motor	1		
34	EMW10060-002 (S)	Circuit Board	1		
35	EMV7123-013R	Connector	1	13Pin	
36	EMV5109-004B	Plug Ass'y	1	4Pin	
37	ESS1200-002	Switch	1		
38	E75609-002	Insulator	1		
39	E75609-001	Insulator	2		
40	E307087-001	Elevator Base Ass'y	1		

Printed Circuit Board Ass'y and Parts List

■ENN-318 □ CD PC Board Ass'y

Note : ENN-318 □ varies according to the areas employed. See note (1) when placing an order.

※ All printed circuit board assemblies are not available as service parts.



Note (1)

PC Board Ass'y	Designated Areas
ENN-318 B	Continental Europe, Scandinavia Australia Universal Type
ENN-318 C	Italy

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q701	2SB1187(E,F)	SILICON ROHM	
	Q702	2SC1740(R,S)	SILICON ROHM	
	Q703	2SA934(Q,R)	SILICON ROHM	
	Q704	DTA114YS	SILICON ROHM	
	Q711	2SC535(B,C)	SILICON HITACHI	
	Q712	2SC1740S(R,S)	SILICON ROHM	
	Q713	2SA933S(R,S)	SILICON ROHM	
	Q721	2SD2144S(VW)	SILICON ROHM	
	Q731	2SD2144S(VW)	SILICON ROHM	
	Q732	2SA933S(R,S)	SILICON ROHM	
	Q733	2SC2060(Q,R)	SILICON ROHM	
	Q734	2SB1357(E,F)	SILICON ROHM	
	Q735	DTA144WS	SILICON ROHM	
	Q761	2SD2144S(VW)	SILICON ROHM	
	Q801	2SD2037(E,F)	SILICON ROHM	
	Q802	2SB1357(E,F)	SILICON ROHM	
	Q803	2SD2144S(VW)	SILICON ROHM	
	Q804	2SD2144S(VW)	SILICON ROHM	
	Q805	2SD2144S(VW)	SILICON ROHM	
	Q841	2SD2144S(VW)	SILICON ROHM	
	Q861	2SA933S(R,S)	SILICON ROHM	
	Q862	2SC1740S(R,S)	SILICON ROHM	
	Q863	2SC1740S(R,S)	SILICON ROHM	
	Q871	2SD2144S(VW)	SILICON ROHM	
	Q872	2SD2144S(VW)	SILICON ROHM	
	Q873	DTA144ES	SILICON ROHM	
	Q991	DTA114YS	SILICON ROHM	
	Q992	DTC114YS	SILICON ROHM	
	Q993	DTC114YS	SILICON ROHM	

I. C. s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC761	STA341M(A)	I.C. SANKEN	
	IC762	M5218AL	I.C. MITSUBISHI	
	IC781	M5218AL	I.C. MITSUBISHI	
	IC801	TL072S	I.C. DAINICHI	
	IC802	BA10339	I.C. ROHM	
	IC803	M5218AL	I.C. MITSUBISHI	
	IC841	YM7121C	I.C. YAMAHA	
	IC871	M5218AL	I.C. MITSUBISHI	
	IC872	M5218AL	I.C. MITSUBISHI	
	IC873	JCE4501	I.C. MATSUSHITA	
	IC991	HD404019RB14S	I.C. HITACHI	
	IC992	MN1281(P,Q)	I.C. MATSUSHITA	

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D703	MTZ5.6JB	ZENER ROHM	
	D791	1SS254	SILICON ROHM	
	D991	1SS254	SILICON ROHM	
	D992	1SS254	SILICON ROHM	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C701	QETB1CM-108	1000MF 16V ELECTRO	
	C702	QETB1CM-108	1000MF 16V ELECTRO	
	C703	QETB1CM-227	220MF 16V ELECTRO	
	C704	QETB1CM-227	220MF 16V ELECTRO	
	C705	QETB1CM-476	47MF 16V ELECTRO	
	C706	QCF21HP-223	0.022MF 50V CERAMIC	
	C707	QETBOJM-227	220MF 6.3V ELECTRO	
	C711	QFN81HJ-472	4700PF 50V MYLAR	
	C712	QFN81HJ-472	4700PF 50V MYLAR	
	C713	QCHB1EZ-223	0.022MF 25V CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C714	QCSB1HK-3R9	3.9PF 50V CERAMIC	
	C715	QCBB1HK-471	470PF 50V CERAMIC	
	C716	QETB1EM-106	10MF 25V ELECTRO	
	C717	QETB1CM-476	47MF 16V ELECTRO	
	C718	QCBB1HK-101	100PF 50V CERAMIC	
	C719	QFLB1HJ-183	0.018MF 50V MYLAR	
	C721	QCSB1HJ-470	47PF 50V CERAMIC	
	C723	QCZ0202-155	1.5MF 25V CERAMIC	
	C724	QFLB1HJ-563	0.056MF 50V MYLAR	
	C725	QFV81HJ-564	0.56MF 50V T.FILM	
	C726	QETB1EM-106	10MF 25V ELECTRO	
	C731	QFLB1HJ-183	0.018MF 50V MYLAR	
	C732	QCBB1HK-271	270PF 50V CERAMIC	
	C733	QFN81HJ-393	0.039MF 50V MYLAR	
	C734	QETB1EM-226	22MF 25V ELECTRO	
	C735	QFLB1HJ-104	0.1MF 50V MYLAR	
	C736	QFV81HJ-224	0.22MF 50V T.FILM	
	C761	QEN51HM-225	2.2MF 50V NON POLE	
	C762	QETB1EM-226	22MF 25V ELECTRO	
	C763	QETBOJM-227	220MF 6.3V ELECTRO	
	C764	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C765	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C781	QFN81HJ-272	2700PF 50V MYLAR	
	C782	QCBB1HK-101	100PF 50V CERAMIC	
	C783	QEN51HM-225	2.2MF 50V NON POLE	
	C784	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C785	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C791	QETB1HM-475	4.7MF 50V ELECTRO	
	C801	QCT26CH-151	150PF 50V CERAMIC	
	C802	QCT26CH-121	120PF 50V CERAMIC	
	C803	QFLB1HJ-223	0.022MF 50V MYLAR	
	C805	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C806	QEN51HM-225	2.2MF 50V NON POLE	
	C807	QFLB1HJ-563	0.056MF 50V MYLAR	
	C808	QETB1CM-476	47MF 16V ELECTRO	
	C809	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C810	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C811	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C812	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C813	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C815	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C816	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C841	QETB1AM-107	100MF 10V ELECTRO	
	C842	QFLB1HJ-104	0.1MF 50V MYLAR	
	C843	QFLB1HJ-104	0.1MF 50V MYLAR	
	C844	QETB1EM-106	10MF 25V ELECTRO	
	C845	QCBB1HK-101	100PF 50V CERAMIC	
	C846	QFV81HJ-105	1MF 50V T.FILM	
	C847	QFN81HJ-182	1800PF 50V MYLAR	
	C848	QFV81HJ-224	0.22MF 50V T.FILM	
	C849	QETB1EM-106	10MF 25V ELECTRO	
	C850	QETBOJM-227	220MF 6.3V ELECTRO	
	C851	QFLB1HJ-104	0.1MF 50V MYLAR	
	C852	QFLB1HJ-104	0.1MF 50V MYLAR	
	C855	QFLB1HJ-473	0.047MF 50V MYLAR	
	C861	QCBB1HK-101	100PF 50V CERAMIC	
	C862	QETB1CM-107	100MF 16V ELECTRO	
	C863	QFLB1HJ-473	0.047MF 50V MYLAR	
	C864	QETB1EM-106	10MF 25V ELECTRO	
	C865	QETB1HM-105	1MF 50V ELECTRO	
	C871	QFLB1HJ-104	0.1MF 50V MYLAR	
	C872	QCZ0202-155	1.5MF 25V CERAMIC	
	C873	QCT30CH-120	12PF 50V CERAMIC	
	C874	QCT30CH-3R9	3.9PF 50V CERAMIC	
	C875	QCS21HJ-100	10PF 50V CERAMIC	
	C876	QCY21HK-392	3900PF 50V CERAMIC	
	C878	QCS21HJ-5R0	5PF 50V CERAMIC	
	C880	EETC1AM-107ZE	100MF 10V	
	C881	QETBOJM-477	470MF 6.3V ELECTRO	
	C883	QFLB1HJ-104	0.1MF 50V MYLAR	
	C884	QFLB1HJ-104	0.1MF 50V MYLAR	
	C886	QFLB1HJ-104	0.1MF 50V MYLAR	
	C887	QCS21HJ-221	220PF 50V CERAMIC	
	C888	QCS21HJ-221	220PF 50V CERAMIC	
	C889	QCS21HJ-221	220PF 50V CERAMIC	
	C890	QCS21HJ-221	220PF 50V CERAMIC	
	C891	QCS21HJ-221	220PF 50V CERAMIC	
	C892	QCS21HJ-221	220PF 50V CERAMIC	
	C893	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C894	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C895	QFN81HJ-182	1800PF 50V MYLAR	
	C896	QFN81HJ-182	1800PF 50V MYLAR	
	C897	QFV81HJ-123	0.012MF 50V T.FILM	
	C898	QFV81HJ-123	0.012MF 50V T.FILM	
	C899	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C900	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C901	QETB1EM-476	47MF 25V ELECTRO	
	C902	QETB1EM-476	47MF 25V ELECTRO	
	C903	QFN81HJ-562	5600PF 50V MYLAR	
	C904	QFN81HJ-562	5600PF 50V MYLAR	
	C905	QFLB1HJ-683	0.068MF 50V MYLAR	
	C906	QFLB1HJ-683	0.068MF 50V MYLAR	
	C907	QCF21HP-103	0.01MF 50V CERAMIC	
	C970	QCZ0202-155	1.5MF 25V CERAMIC	
	C971	QCF21HP-223	0.022MF 50V CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C980	QCF21HP-102	1000PF 50V CERAMIC	
	C987	QCF21HP-223	0.022MF 50V CERAMIC	
	C995	QER50JM-107	100MF 6.3V ELECTRO	
	C996	QETB1AM-107	100MF 10V ELECTRO	
	C997	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C998	QCZ0202-155	1.5MF 25V CERAMIC	
	C999	QCS21HJ-470	47PF 50V CERAMIC	

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	R701	PTH61G25AR4R7M	FUSIBLE RE	SI
⚠	R702	PTH61G25AR4R7M	FUSIBLE RE	SI
⚠	R703	QRZ0077-100	10 1/4W FUSIBLE	
⚠	R704	QRZ0077-100	10 1/4W FUSIBLE	
	R705	QRD167J-472	4.7K 1/6W CARBON	
	R706	QRD167J-122	1.2K 1/6W CARBON	
	R708	QRD167J-472	4.7K 1/6W CARBON	
	R709	QRD167J-122	1.2K 1/6W CARBON	
	R710	QRD167J-121	120 1/6W CARBON	
	R711	QRD167J-183	18K 1/6W CARBON	
	R712	QRD167J-432	4.3K 1/6W CARBON	
	R713	QRD167J-391	390 1/6W CARBON	
	R714	QRD161J-221	220 1/6W CARBON	
	R715	QRD167J-152	1.5K 1/6W CARBON	
	R716	QRD167J-561	560 1/6W CARBON	
	R717	QRD167J-561	560 1/6W CARBON	
	R718	QRD167J-562	5.6K 1/6W CARBON	
	R719	QRD167J-152	1.5K 1/6W CARBON	
	R720	QRD167J-271	270 1/6W CARBON	
	R721	QRD167J-471	470 1/6W CARBON	
	R722	QRD167J-682	6.8K 1/6W CARBON	
	R723	QRD167J-103	10K 1/6W CARBON	
	R726	QRD167J-102	1K 1/6W CARBON	
	R727	QRD167J-183	18K 1/6W CARBON	
	R731	QRD167J-104	100K 1/6W CARBON	
	R732	QRD167J-104	100K 1/6W CARBON	
	R733	QRD167J-394	390K 1/6W CARBON	
	R734	QRD167J-394	390K 1/6W CARBON	
	R735	QRD167J-121	120 1/6W CARBON	
	R736	QRD167J-182	1.8K 1/6W CARBON	
	R737	QRD167J-681	680 1/6W CARBON	
	R738	QRD167J-473	47K 1/6W CARBON	
	R739	QRD167J-331	330 1/6W CARBON	
	R740	QRD167J-333	33K 1/6W CARBON	
	R741	QRD167J-273	27K 1/6W CARBON	
	R742	QRD167J-394	390K 1/6W CARBON	
	R743	QRD167J-105	1M 1/6W CARBON	
	R744	QRD167J-470	47 1/6W CARBON	
	R745	QRD167J-473	47K 1/6W CARBON	
	R746	QRD167J-272	2.7K 1/6W CARBON	
	R747	QRD167J-682	6.8K 1/6W CARBON	
	R748	QRD167J-104	100K 1/6W CARBON	
	R749	QRD167J-562	5.6K 1/6W CARBON	
	R750	QRD167J-105	1M 1/6W CARBON	
	R751	QRD167J-105	1M 1/6W CARBON	
	R752	QRD167J-104	100K 1/6W CARBON	
	R753	QRD167J-562	5.6K 1/6W CARBON	
	R754	QRD167J-104	100K 1/6W CARBON	
	R755	QRD167J-103	10K 1/6W CARBON	
	R756	QRD167J-470	47 1/6W CARBON	
	R757	QRD167J-183	18K 1/6W CARBON	
	R758	QRD167J-183	18K 1/6W CARBON	
	R759	QRD167J-222	2.2K 1/6W CARBON	
	R761	QRD167J-564	560K 1/6W CARBON	
	R762	QRD167J-224	220K 1/6W CARBON	
	R763	QRD167J-393	39K 1/6W CARBON	
	R764	QRD167J-224	220K 1/6W CARBON	
	R765	QRD167J-562	5.6K 1/6W CARBON	
	R766	QRD167J-392	3.9K 1/6W CARBON	
	R768	QRD167J-103	10K 1/6W CARBON	
	R769	QRD167J-102	1K 1/6W CARBON	
	R770	QRD167J-471	470 1/6W CARBON	
	R771	QRD167J-683	68K 1/6W CARBON	
	R772	QRD167J-183	18K 1/6W CARBON	
	R773	QRD167J-183	18K 1/6W CARBON	
	R774	QRD167J-470	47 1/6W CARBON	
	R775	QRD167J-335	3.3M 1/6W CARBON	
	R776	QRD167J-472	4.7K 1/6W CARBON	
	R777	QRD167J-472	4.7K 1/6W CARBON	
	R778	QRD167J-472	4.7K 1/6W CARBON	
	R781	QRD167J-684	680K 1/6W CARBON	
	R782	QRD167J-684	680K 1/6W CARBON	
	R783	QRD167J-823	82K 1/6W CARBON	
	R784	QRD167J-470	47 1/6W CARBON	
	R785	QRD167J-683	68K 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R786	QRD167J-123	12K 1/6W CARBON	
	R787	QRD167J-152	1.5K 1/6W CARBON	
	R788	QRD167J-2R2	2.2 1/6W CARBON	
	R790	QRD167J-684	680K 1/6W CARBON	
	R791	QRD167J-513	51K 1/6W CARBON	
	R792	QRD167J-513	51K 1/6W CARBON	
	R793	QRD167J-683	68K 1/6W CARBON	
	R794	QRD167J-683	68K 1/6W CARBON	
	R795	QRD161J-221	220 1/6W CARBON	
⚠	R797	QRZ0077-4R7	4.7 1/4W FUSIBLE	
	R801	QRD167J-563	56K 1/6W CARBON	
	R802	QRD167J-563	56K 1/6W CARBON	
	R803	QRD167J-394	390K 1/6W CARBON	
	R804	QRD167J-681	680 1/6W CARBON	
	R805	QVPA601-202A	2K VARIABLE	
	R806	QRD167J-561	560 1/6W CARBON	
	R807	QRD167J-334	330K 1/6W CARBON	
	R808	QRD167J-222	2.2K 1/6W CARBON	
	R809	QVPA601-154A	150K VARIABLE	
	R810	QRD167J-223	22K 1/6W CARBON	
	R811	QRD167J-682	6.8K 1/6W CARBON	
	R812	QRD167J-103	10K 1/6W CARBON	
	R813	QRD167J-562	5.6K 1/6W CARBON	
	R814	QRD167J-562	5.6K 1/6W CARBON	
	R815	QRD167J-562	5.6K 1/6W CARBON	
	R816	QRD167J-562	5.6K 1/6W CARBON	
	R817	QRD167J-183	18K 1/6W CARBON	
	R819	QRD167J-103	10K 1/6W CARBON	
	R820	QRD167J-224	220K 1/6W CARBON	
	R821	QRD167J-103	10K 1/6W CARBON	
	R823	QRD167J-434	430K 1/6W CARBON	
	R824	QRD167J-474	470K 1/6W CARBON	
	R825	QRD167J-103	10K 1/6W CARBON	
	R826	QRD167J-184	180K 1/6W CARBON	
	R827	QRD167J-104	100K 1/6W CARBON	
	R828	QRD167J-104	100K 1/6W CARBON	
	R829	QRD167J-681	680 1/6W CARBON	
	R830	QRD167J-183	18K 1/6W CARBON	
	R832	QRD167J-102	1K 1/6W CARBON	
	R833	QRD167J-562	5.6K 1/6W CARBON	
	R837	QRD167J-470	47 1/6W CARBON	
	R838	QRD167J-562	5.6K 1/6W CARBON	
	R839	QRD167J-183	18K 1/6W CARBON	
	R841	QRD167J-182	1.8K 1/6W CARBON	
	R842	QRD161J-221	220 1/6W CARBON	
	R843	QRD167J-184	180K 1/6W CARBON	
	R844	QRD167J-393	39K 1/6W CARBON	
	R845	QVPA601-104A	100K VARIABLE	
	R846	QRD167J-224	220K 1/6W CARBON	
	R847	QRD167J-182	1.8K 1/6W CARBON	
	R848	QRD167J-122	1.2K 1/6W CARBON	
	R849	QRD167J-822	8.2K 1/6W CARBON	
	R850	QRD167J-822	8.2K 1/6W CARBON	
	R851	QRD167J-821	820 1/6W CARBON	
	R852	QRD167J-182	1.8K 1/6W CARBON	
	R853	QRD167J-101	100 1/6W CARBON	
	R855	QRD167J-682	6.8K 1/6W CARBON	
	R856	QRD167J-682	6.8K 1/6W CARBON	
	R857	QRD167J-102	1K 1/6W CARBON	
	R859	QRD167J-102	1K 1/6W CARBON	
	R860	QRD167J-102	1K 1/6W CARBON	
	R861	QRD167J-103	10K 1/6W CARBON	
	R862	QRD167J-272	2.7K 1/6W CARBON	
	R863	QRD167J-102	1K 1/6W CARBON	
	R864	QRD167J-271	270 1/6W CARBON	
	R865	QRD167J-103	10K 1/6W CARBON	
	R866	QRD167J-562	5.6K 1/6W CARBON	
	R867	QRD167J-472	4.7K 1/6W CARBON	
	R868	QRD167J-822	8.2K 1/6W CARBON	
	R869	QRD167J-103	10K 1/6W CARBON	
	R871	QRD167J-561	560 1/6W CARBON	
	R872	QRD167J-561	560 1/6W CARBON	
	R873	QRD167J-561	560 1/6W CARBON	
	R874	QRD167J-561	560 1/6W CARBON	
	R875	QRD167J-472	4.7K 1/6W CARBON	
	R876	QRD167J-560	56 1/6W CARBON	
	R877	QRD167J-181	180 1/6W CARBON	
	R878	QRD167J-101	100 1/6W CARBON	
	R879	QRD167J-183	18K 1/6W CARBON	
	R880	QRD167J-183	18K 1/6W CARBON	
	R881	QRD167J-183	18K 1/6W CARBON	
	R882	QRD167J-183	18K 1/6W CARBON	
	R883	QRD167J-183	18K 1/6W CARBON	
	R884	QRD167J-183	18K 1/6W CARBON	
	R885	QRD167J-183	18K 1/6W CARBON	
	R886	QRD167J-183	18K 1/6W CARBON	
	R887	QRD167J-243	24K 1/6W CARBON	
	R888	QRD167J-243	24K 1/6W CARBON	
	R889	QRD167J-243	24K 1/6W CARBON	
	R890	QRD167J-243	24K 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R891*	QRD167J-183	18K 1/6W CARBON	
	R892	QRD167J-183	18K 1/6W CARBON	
	R893	QRD167J-183	18K 1/6W CARBON	
	R894	QRD167J-183	18K 1/6W CARBON	
	R895	QRD167J-511	510 1/6W CARBON	
	R896	QRD167J-511	510 1/6W CARBON	
	R897	QRD167J-112	1.1K 1/6W CARBON	
	R898	QRD167J-112	1.1K 1/6W CARBON	
	R899	QRD167J-472	4.7K 1/6W CARBON	
	R900	QRD167J-472	4.7K 1/6W CARBON	
	R901	QRD167J-273	27K 1/6W CARBON	
	R902	QRD167J-273	27K 1/6W CARBON	
	R903	QRD167J-471	470 1/6W CARBON	
	R904	QRD167J-471	470 1/6W CARBON	
	R921	QRD167J-681	680 1/6W CARBON	
	R922	QRD167J-681	680 1/6W CARBON	
	R923	QRD167J-241	240 1/6W CARBON	
	R924	QRD167J-241	240 1/6W CARBON	
	R925	QRD167J-104	100K 1/6W CARBON	
	R926	QRD167J-104	100K 1/6W CARBON	
	R927	QRD167J-392	3.9K 1/6W CARBON	
	R928	QRD167J-392	3.9K 1/6W CARBON	
	R929	QRD167J-684	680K 1/6W CARBON	
	R930	QRD167J-154	150K 1/6W CARBON	
	R991	QRD167J-102	1K 1/6W CARBON	
	R992	QRD167J-473	47K 1/6W CARBON	
	R994	QRD167J-103	10K 1/6W CARBON	
	R995	QRD167J-472	4.7K 1/6W CARBON	
	R996	QRD167J-105	1M 1/6W CARBON	
	R999	QRD167J-472	4.7K 1/6W CARBON	
	RA991	QRB045J-473M	47K 1/8W R.NETWORK	

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10212-004	PRINTED BOARD	
		E306805-010	SPACER	
		E306951-002	FL DISPLAY HOLDER	
		E70225-001	EARTH PLATE	
		E70306-001	HEAT SINK	
		E70859-001	EARTH PLATE	
		SBSE3008CC	SCREW	
	J991	EMV7120-006	CONNECTOR6PIN : KEY MATRIX	
	J992	EMV7123-021R	CONNECTOR21PIN : FRONT PCB	
	J993	EMV7123-021	CONNECTOR21PIN : To FRONT	
	J994	EMV7123-013	CONNECTOR13PIN : To MECHA	
	J995	EMV5109-010A	PLUG ASSY10PIN : Pickup	
	J996	EMV7141-013M	CONNECTOR13PIN : SYSTEM CONNECTOR	
	K980	ENZ8101-008	INDUCTOR	
	K983	ENZ8101-008	INDUCTOR	
	K987	ENZ8101-008	INDUCTOR	
	P991	EMV5120-006	PLUG ASSY6PIN : KEY MATRIX	
	S901	ESP0001-018	TACT SWITCHSTOP	
	S902	ESP0001-018	TACT SWITCHSKIP +	
	S903	ESP0001-018	TACT SWITCHPLAY/PAUSE	
	S904	ESP0001-018	TACT SWITCHOPEN/CLOSE	
	S905	ESP0001-018	TACT SWITCHSKIP−	
	S906	ESP0001-018	TACT SWITCHDISPLAY	
	S907	ESP0001-018	TACT SWITCHREPEAT	
	S908	ESP0001-018	TACT SWITCHA.EDIT	
	S909	ESP0001-018	TACT SWITCHSIDE A/B	
	S910	ESP0001-018	TACT SWITCHP.EDIT	
	S911	ESP0001-018	TACT SWITCHRANDOM	
	X841	ECX0169-344EA	RESONATOR	
	CF991	ECX0004-194KM	RESONATOR	
	FL991	ELU0001-114	FL TUBE	

⚠ : SAFETY PARTS